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ANATOMY, SURGERY, AND OPHTHALMOLOGY.

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ART. I.—*Papers on the Surgical Diseases and Surgery of Children.* By W. P. GUERSANT, Chirurgeon Honoraire de l'Hopital des Enfants Malades—Membre honoraire de la Societé de Chirurgie, etc., etc., etc. Translated from the French by J. C. REEVE, M. D., Dayton, O.

VI.—PRACTICAL REMARKS UPON HYPERTROPHY OF THE TONSILS IN CHILDREN.

Enlarged tonsils are met with among children at all ages, even as early as during the first year. Examined anatomically they present augmentations of volume and changes of consistence more or less considerable. Sometimes they are changed in shape, divided into several lobes. They are very apparent to the sight, projecting from their normal position, either inward or descending down into the pharynx. Again, they are buried between the arches of the soft palate, and enlarge under the cover of the anterior arch, mounting upward to press against the eustachian tube. Their structure is most generally firm and consistent, sometimes softened, sometimes even tearing readily. The vessels of the substance of the tonsils are developed in proportion to

the duration of the hypertrophy. They are occasionally adherent. I have never found cancerous degeneration of these bodies, as in adults.

This affection is much more frequent in children than in adults. More than a hundred cases are presented annually at the surgical department of the children's hospital; there does not a year pass in which we do not operate upon eighty to ninety cases in the hospital, and from fifteen to twenty-five in our practice in the city.

The cause of that hypertrophy of the tonsils which is permanent and not transient, is often the lymphatic constitution alone; sometimes, however, it depends upon frequent attacks of angina.

The symptoms of the affection are generally very easy to discover. Ordinarily the child maintains its mouth almost constantly open, its speech is somewhat embarrassed and nasal, and sometimes there is slight deafness; during sleep the patients snore more or less, are restless, lay with the mouth open and the tongue becomes dry; some of them have narrow chests because they can not fully dilate the lungs.

When the tongue is depressed the tonsils can be seen, in some children, touching each other at the median line. There are other cases in which they are not so prominent; they are concealed by the arches of the palate, which have been enlarged before them, these cases we call *amygdales enchatonnees*, they are in fact sunk in the tonsil, or fossa, and extend more or less upward.

All these children suffer frequently from affections of the throat, and are extremely distressed when taken with angina.

Abandoned to themselves hypertrophied tonsils often diminish in size, with some patients, especially at the arrival of puberty, toward twelve or fourteen in girls, and sixteen or eighteen in boys. We often refuse to operate about this time. After this period of puberty the tonsils may remain stationary or diminish in volume, while before it they tend to continue about the same size.

Diagnosis.—For want of attention abscess of the tonsils may be mistaken for hypertrophy. Sometimes also there is augmentation of volume of the tonsils produced by a retro-pharyngeal abscess which pushes forward the posterior wall of the pharynx, interferes with speech, makes the tonsils project forward and gives a nasal tone to the voice of the patient. The more rapid development of the latter affection, and an attentive examination will suffice to correct the diagnosis.

Prognosis.—Hypertrophy of the tonsils is grave in proportion to the youth of the patient. In fact, the narrower the throat is made and the more the tonsils encroach upon the air passages, the more these difficulties are increased when an acute angina comes to still further augment

the volume of the offending bodies. Also, the younger the children are the greater the advantage derived from curing them. They present, it is true, greater difficulties for an operation, but I have several times operated easily upon children of eighteen months and two years of age.

If in young subjects whose throats are narrowed, the hemorrhage following excision of the tonsils is not likely to be troublesome, it is not the same in patients of eighteen or twenty years old. Hemorrhage in such cases is frequently to be feared, because the hypertrophy is of longer standing and the vessels are more developed. I have operated upon more than a thousand children, and I can scarcely remember three who had sufficient hemorrhage to cause me any anxiety. On the contrary, I have operated upon twelve or fifteen adults, and I must say that at least four or five of them caused me great uneasiness, and that I could only stop the hemorrhage by the use of the hot iron or the perchloride of iron.

I should say then, that the operation is beneficial in proportion to the youth of the patient, and grave in proportion to his advance in age. We can, and we should operate upon even young children; but then we must do it by surprise which is not possible with the elder ones.

Treatment.—If, in many cases, we may decide promptly upon surgical treatment, that is to say, excision, we should also say that the surgeon must acknowledge that his intervention is not always useful, and that he should content himself with waiting in some cases, relying upon time, the efforts of nature, and some local measures which may prove beneficial. In truth, the modification of the lympathic constitution by the iodides, the bitters and the ferruginous salts, may suffice. Some local applications, such as astringents, alum, the nitrate of silver, applications of tincture of iodine, and the sulphurous douche in the hands of M. Lambron, at Suchon, have given good results, but always with patience and perseverance. But excision is always the preferable means to relieve the patients promptly, and spare them those repeated local applications which are veritable operations at this tender age, irritating and disposing to accidents of a convulsive character. I lost a child by convulsions which, before the operation, had been submitted during several weeks to repeated applications of the powder of alum and other astringents, each application having caused more irritation than the operation of excision itself.

Excision of the Tonsils.—We shall not speak of the ligature or cauterization, but only of the operation at present in use, excision by means of a cutting instrument, the bistoury or the scissors, and the

amygdalatome. We should not decide upon this operation except the patients are really incommoded or embarrassed by the presence of the enlarged bodies. We should not operate unless the patients are otherwise in good health; it would be imprudent to act in a case where a pseudo-membranous angina was commencing to develope itself, for after excision of the most healthy tonsils a false membrane is always formed. It is prudent to prepare those patients who may suffer from hemorrhage by the use of astringents, even of perchloride of iron, internally, and order them to gargle with a mixture of water and lemon juice. A mustard foot-bath in the evening, and low diet in the morning, before the operation, are also necessary. It may be advantageous, also, to prepare the patient by depressing the tongue for a few days, in order to accustom him to it.

For the operation we employ the Museaux forceps, the curved scissors or probe-pointed bistoury, or, better still, Fahnestock's instrument, either simple or modified. Whatever instrument may be used we have entirely renounced all tongue depressors and corks between the teeth, which interfere with our maneuvers. We attach great importance, in all cases, to the patient being firmly held; without this you are exposed to having the child escape you, and to commencing the operation without being able to finish it. The assistant should hold the patient between his legs; with the left hand he should hold his head firmly pressed against his breast, and take his two hands in his right hand. He should be thoroughly convinced of the necessity of holding the child vigorously however young it may be; he should never trust to the child's feebleness, but always be prepared to exercise that amount of force which will be certain to produce the desired effect.

I will describe only the operation with the amygdalatome, simple or modified, an instrument which appears to me indispensable for children.

The operator will do well to have two instruments at hand, whatever kind he may use, those which require both hands or only one, that of Charriére or of Matthiew. The important point is, to use that to which you are most accustomed, and above all, to choose one the fenestra of which has its greatest diameter vertically, for the tonsil extends further from above downward than from before backward. It is also important to make use of an instrument proportioned to the age of the child, an instrument a little too small is better than one too large. The object of two instruments is to enable us to remove one tonsil after the other without losing time to clear the instrument of the first one taken off. M. Chassaignac operates by placing first an instrument in each tonsil,

and making them act one after the other. This procedure, which requires one more assistant, has the advantage, perhaps, of permitting a better application of the instruments, because the bleeding renders the application upon the second tonsil more difficult.

However, in using the amygdalatome, the operation may be divided into four steps: 1st. Depress the tongue. 2d. Engage the tonsil in the ring. 3d. Thrust the pin forward and draw the tonsil inward. 4th. Draw the cutting ring.

It is well to be ambidextrous. The operator will stand before the patient whose face is toward the light, and place the instrument with the right hand on the left tonsil, and *vice versa*. First depress the tongue by carrying the flat of the ring along to its base, and turning toward the right or the left according to the side to be operated on, engage the tonsil in the ring. Then push forward the pin or fork which pierces the tonsil and draw it inward by a leverlike action, and finally excise by drawing back the cutting edge. As soon as one is removed take up the other instrument and proceed to operate on the second without letting the child go.

If you have not practiced the operation much you may only seize a small portion of the tonsil, and instead of removing it merely shave it. This may depend upon too slight engagement of the body in the ring, or a failure to act upon the extremity of the fork so as to make it project inward. This slicing process will suffice sometimes, but it is best not to place too much reliance in it; better boldly carry the instrument in again and seize what is left.

You may sometimes engage the arch of the palate or even a little of the palate itself; this is an insignificant accident. Sometimes the tonsil will escape from the fork and the patient swallow it; this need not disquiet you. In examining attentively the mechanism of the instrument, you will see that there is nothing to be feared in regard to dividing the palate, the tongue, or wounding the carotid artery which runs along the pharynx in the region where the tonsil resists. You will perceive that the action of the ring, which is blunt, is to push the pharynx outward and thus remove the artery, while the fork draws the tonsil inward. It can thus be excised and even enucleated without fear of injuring the artery. Very often we enucleate tonsils.

We should say, however, that this mode of operating does not give any greater safeguard against hemorrhage than the old plan with the forceps and the bistoury. If, with the amygdalatome, we are safe as to wounding the carotid, we may have hemorrhage from dividing the vessels which ramify in the tissue of the tonsil.

This accident is very rare in children, and is observed especially in adults with whom the hypertrophy is of longer standing.

The hemorrhage is observed at two periods, either immediately after the operation, or consecutively, four or five days afterward. In the first class of cases, cold water acidulated with lemon juice, or vinegar, ordinarily suffices. A brush dipped into lemon juice, mixed with alum, may be applied to the place whence the blood flows. But the most certain means is the use of a small nummular cautery heated to a white heat; or, you may content yourself, and I scarcely do any thing else of late, with applying a piece of lint dipped in a mixture of solution of perchloride of iron with one-third water, and holding it an instant upon the cut surface of the tonsil. Several times the use of ice has succeeded in my hands. For the second class of cases, those in which hemorrhage comes on several days consecutively to the operation, ice and acidulated drinks are generally sufficient.

After Treatment.—There is always more or less draining of blood. Generally it ceases in a few minutes after gargling a little cold water. You should always remember that children do not clear the throat by hawking, and therefore swallow the blood; in these cases they sometimes vomit after having swallowed it, or, not vomiting, the blood passes into the intestines and the first passages contain some clots. It is prudent to make the parents aware of this or they may be needlessly alarmed. Nothing warm or heating should be applied about the neck. Cold and acid drinks, such as lemonade or orangeade, should be given, and the patients encouraged to gargle if they can. The diet should be light for the first few days, gradually increasing in strength. The children should talk as little as possible for a few days or a week.

You should not forget that false membranes are always observed upon the surface of the wounds caused by the operation, but they have not the characteristics of diptheritic membranes. These false membranes, which fall off toward the fourth or fifth day, give rise to a slight bleeding, which may be considerable if by crying their exfoliation is produced too soon. You can not watch them too carefully, and may facilitate their removal by occasionally touching them with lemon juice.

The results of removing the tonsils are often very remarkable. Children who were deaf sometimes hear after the operation; those whose speech was affected, often pronounce much better; those who sing gain much in clearness of voice; finally, and it is one of the greatest advantages, those whose chests were narrowed respire better; the ribs, however depressed they may have been, return to their normal position, and the chest gains in size. This result, of course, is felt throughout the whole economy.

Reduction of old Dislocations of the Hip-Joint.

Mr. Erichsen in the fourth London edition of "*The Science and Art of Surgery*," 1864, p. 321, makes the following remarks:

"The attempt to reduce old dislocations of the hip-joint is necessarily attended with danger. In some cases the soft parts have been extensively lacerated: in others fatal inflammation of the joint has ensued; and in at least eight cases with which I am acquainted, the thigh bone has been fractured. The accident has happened to surgeons of such eminence as Travers, Vincent, Malgaigne, Physick, of Philadelphia, to Gwynne, of the Brighton hospital, to Blackman, of Cincinnati, to Harris and Randolph, of the Pennsylvania hospital, to the surgeons of the Northern hospital in Liverpool, and to a practitioner in London, now living. In most of these cases the bone gave way at its neck or below the trochanters; the dislocation was of course left unreduced, but the patients recovered without serious difficulty, the fractures being treated in the usual way. The cause of the fracture usually appears to have been the employment of force in a transverse or rotary manner after extension had been kept up for some considerable time. But there is no proof that undue violence was used in any of these cases."

Consolatory as the last sentence may be to those who have met with the accident above mentioned, we were not aware until reading the above that anything of the kind had ever occurred in our practice. We have successfully reduced by manipulation luxations of the head of the femur after seven and a half months, six months, and four months, to say nothing of others in which from ten to thirty days had elapsed after the luxation, and have no recollection of having had a fracture in any of the unsuccessful attempts we have made.

Removal and Renewal of the Os Calcis.

Mr. Hilton, in his most valuable "*Lectures on Rest and Pain*," p. 436 thus remarks:

"In 1855, I removed nearly the whole of the os calcis of a young patient by making an incision along the outer and back part of the foot. I took care to leave the periosteum as complete as could be, and not to disturb the surrounding granulating surfaces, and especially to guard against any interference with the epiphysis of the os calcis; and here (Fig. 108) is roughly depicted the condition of the foot sometime after the operation. I have seen the patient since that drawing was made: the foot is quite consolidated and healthy, but not so fully developed as on the left side, although there seems to be almost as good an os calcis as in the other foot. It is hard and solid; there is no pain on pressure; and the bone seems to have been perfectly reproduced. If that be true, and the explanation pertinent, it is highly important to avoid any interference with the periosteum and granulations which surround these necrosed or carious portions of bone."

We recently exhibited at a clinical lecture at the Good Samaritan (old St.

Johns') hospital a boy about twelve years of age, from whose foot we removed the os calcis, with the exception of the parts specified in Mr. Hilton's case. The operation was performed in 1864, and the reproduction of the os calcis has been so perfect that there is scarcely any perceptible difference between the length of that foot and the one on the sound side.

Mr. Erichsen, in his last London edition, 1864, p. 777, thus gives us his views in reference to the excision of the os calcis.

"When the disease is situated in the *posterior or lateral parts of the bone*, the neighboring articulations are seldom involved, and then the removal of the morbid structures by gouging [with the bone-gouge forceps—*Ed.*] will usually succeed in effecting a cure. I have frequently had occasion in this way to scoop out great portions, sometimes the whole of the interior of the calcaneum, with the most excellent results. Even when the cuboid is extensively implicated as well, and the calcaneo-cuboid articulation is the seat of diseased action, the disorganized structures may often be removed by gouging and partial resection, as in the case of which the cut (Fig. 264) is a good representation, where, by means of a ⊥ shaped incision, these bones were exposed, and their carious portions gouged out. Should, however, the caries have affected *superior or anterior portions of the bone*, then the implication of the astragaloid or cuboid articulations may render the excision of the whole bone necessary, as the only means of preventing extension of secondary morbid action to the tarsus generally. So infrequent, however, is disease of the articular aspects of this bone, that its complete removal is very seldom necessary. Out of eighteen or twenty cases of caries of the os calcis that have been under my care, I have never had occasion to excise the bone but once; and Fergusson states that he has never yet found it necessary to do this operating. Indeed, excision of the os calcis should not be lightly undertaken. The large size of the bone, its importance as a basis of support to the body, and as the point of attachment to the strong muscles of the calf, should induce the surgeon, whenever practicable, to avoid its complete extirpation, and limit himself to the application of the gouge, even though he may have to scoop out the whole of the interior of the bone, leaving little more than an osseous shell. This will fill up by a deposit of a dense fibroid tissue, which, probably, eventually undergoing partial ossification, leaves the foot as useful as ever for all purposes of support and progression."

In noticing the history of this operation, Mr. Erichsen, with other British writers, seems to have fallen into a mistake. After referring to the fact that it has been performed in a number of instances in Great Britain and America, he adds: "In France, however, it seems to have found little favor, if indeed it has been performed. Guerin, one of the most recent French writers on operative surgery, states that excision of the os calcis should not be attempted, and gives as his only reason for describing the operative procedure, that English surgeons have not feared to undertake it." Now, on turning to our edition of Mott's Velpeau (Operative Surgery), vol. 2, p. 425, we find the following statement by M. Velpeau:

"If, however, the whole of the os calcis is to be removed, the crucial incision may be adopted. It is rare, however, that any other than degenerations of a bad character require this kind of exsection; the necrosis presenting itself almost always under the form of a fragment or nodule, imprisoned in the center of a fistulous cavity, requires only that we should make an opening of sufficient size to extract it, and thus place the system in a situation to dry up the purulent discharge. The excision of the os calcis, which has been performed at Wurtzburg, by M. Heine (*Gaz Md.* 1834, *Memoire* citée, p. 644); at Paris, by M. Roux (*Lancette Franc.* t. ii, p. 215), and by Dupuytren (communicated by M. Champion, 1838), who, in 1833, related four cases of this kind to M. Champion, has furnished every where favorable results. The patients thus operated upon, have a heel which has a great tendency to become ulcerated and excoriated; but in other respects the functions of the foot are not disturbed.

"SPERMATORRHŒA."*

"Real spermatorrhœa is a most rare, almost unknown disease. If you ask all the physicians and surgeons of prominent standing in the hospital staffs in this metropolis, they will tell you they are doubtful if they ever saw a decided case. But of *imaginary* spermatorrhea they have almost daily instances in private practice. Persons whose minds are unhinged with the horrid suggestion are constantly coming before them, and if the poor creatures will confess to the source of their impression, it may be generally traced to the reading of beastly books or advertisements in the newspapers. You could scarcely imagine how enormous is the circulation of these publications; under specious titles, they are advertised at the cost of about £20,000 a year, and are sent all over the globe. . . . . The nature of the cases under the delusion of these ingenious traps, and presenting themselves to you for spermatorrhea, are various. There are, 1. A gleety discharge from slight stricture. 2. A similar discharge from pure debility, exactly analogous to leucorrhea in the female. This is common in the active-minded, who use much mental exertion at night, such as students cramming for examination, etc. 3. Incapacity to complete the generative act from mental agitation. This happens to new married men from modest respect, and to the unmarried from consciousness of sin, and disgust toward the female. The same mental agitation produces simultaneously indigestion and a deposite of lithates in the urine, which is then supposed to be semen. 4. Nocturnal pollutions, arising solely from the habit of oversleeping; but rarely affecting the health, except secondarily through the mind. 5. Slight epileptic fits. 6. Simple delusions, grounded on no symptom, but taking this form on account of the secret publicity given to the gross exaggerations and falsehoods contained in the books I have alluded to. 7. The fallacies which harass these poor people, are often the more deeply ingrained by the con-

*Mr. Curling in the London edition, 1866, of his "*Practical Treatise on the Diseases of the Testis*," remarks: "In a great proportion of the cases which come under notice in practice, the complaint is extremely slight, or more mental than real."—ED.

cisousness of dirty habits in their boyhood, though probably those habits have been long left off, and have never been practiced to the extent of injuring the health. But sometimes you will find patients complaining of "spermatorrhea," half with the idea of deceiving, and half as a euphemistic way of telling you that they are still addicted to self-pollution. These are the most common of the cases you will see. When you first enter upon practice, their extreme frequency, combined with the entire absence of the complaint supposed to exist, is a great surprise to you. But I trust no pupil of St. Mary's hospital will ever be led to sacrifice the interests of truth by pandering to the unhappy error of the patient. He may make his purse heavy, but his conscience will be weighted in double proportion, and sooner or later he will most surely be found out and held up to the scorn of his brethren."—*Dr. Thomas H. Chambers, in London Lancet*, June, 1861.

Which is the Lingual Nerve?

Prof. Blackman: *Dear Sir:* Inasmuch as a division of the gustatory nerve of the tongue, in cases of cancer of that organ, is a proceeding practiced and advocated by several of the authorities in surgery at the present time—as Hilton and Wood of London, and Roser, of Germany; and as there is a want of agreement among writers on anatomy in the application of the name "lingual" to the nerves distributed to the tongue, it may be well to call attention to this discrepancy; otherwise, the instructions for the performance of the operation mentioned, will prove unintelligible to those whose understanding of the term "lingual," when that is the one used in the description, differs from that of the author. The probability of such confusion resulting, is the greater, from the fact that Mr. Erasmus Wilson, whose work on anatomy circulates so widely, differs from nearly all other authorities in applying the term "lingual" to the hypoglossal, or ninth cranial nerve according to the enumeration of Willis. Harrison and Morton very loosely apply the term indifferently to the hypoglossal and the gustatory, while Gray, Sharpey and Quain, Horner, Leidy, Hirschfeld, Sappey, Cruveilheir, Jamain, Jarjavay and Malgaigne, speak of the latter, only, as the "lingual" nerve. For the sake then of freeing the nomenclature of the subject from all ambiguity, the term "lingual" should be restricted in its application to the gustatory branch of the inferior maxillary division of the fifth nerve; as the weight of authority is so decidedly in favor of the use of that name.

Yours respectfully, Thomas H. Kearney.

[Not long since we were describing to our class, in the Medical College of Ohio, the operation of dividing the lingual nerve, as recommended and practiced by Mr. Hilton, in Guy's hospital, London, in cases of cancer of the tongue. After referring to the instances in which it has been repeated by Roser, of Germany, by Moore, of the Middlesex hospital, London, and in our own practice, we passed around a beautiful French preparation in our possession, showing the point at which the nerve may be conveniently reached as it passes between the internal pterygoid muscle and ramus of the lower

jaw. After our lecture, Dr. Thomas H. Kearney, the Prosector in Surgery, called our attention to what he regarded as an anatomical error on my part, remarking that the operation I had described would divide the gustatory and not the lingual, which was the hypoglossal nerve. Appreciating full well the doctor's accurate knowledge of anatomy, we took some pains to ascertain how our mistake, if a mistake, had occurred, and found the explanation of the matter in the discrepancy among writers above indicated by Dr. Kearney.

Cancer.

Mr. T. W. Cooke, in his recently published work "*On Cancer, its Allies and Counterfeits*," London, 1865, p. 98, makes the following observations which accord with our own experience:

"The early removal of a scirrhous tumor does not seem to be followed by a prolonged immunity so often as when the disease has made more progress. There is an active and a passive stage; and where the tumor is removed in its active condition, the constitution resents this interference with its peculiar propensity, and continues its baneful work, very frequently in an aggravated form, either in the same or some other locality. I have seen so many instances of the disease returning rapidly after operation at the commencement of its development, that I feel convinced, we shall advise our patients well in recommending them to wait until the tumor has ceased to grow, or until having become attached to the skin, it has ulcerated, and is beginning to waste the powers of the body by the accompanying discharge either of pus or blood, or both. An operation done on a scirrhus just formed, must always be a doubtful benefit; but in the later stage it has the certain advantage of getting rid of a source of constitutional decline, and in many instances of that which is the full complement of the cancerous dyscrasia. . . . I had only to add to this part of my subject (p. 104), that an operation by no means implies the necessity of foregoing appropriate constitutional treatment, but rather increases its desirability, owing to the loss of strength which follows any loss of blood, and the debility which results from any unwonted confinement in bed."

Varicocele.

The following operation for a radical cure is recommended by Mr. Henry Lee, in his work "*On Diseases of the Veins*," London, 1866, p. 91:

"The patient usually takes a little chloroform, sufficient to render him for a minute or two regardless of pain, but not sufficient to render him insensible. The scrotum on the side of the varicocele is then taken between the fingers and thumb, and the vessels are allowed to glide one by one out of the hand. Presently the vas deferens will escape, and may always be known by its peculiar hardness. As soon as this is separated from the other vessels, two needles are passed beneath the veins about an inch apart. These are made to pass between the vas deferens and the veins to be operated upon. Pressure is then made by means of elastic bands, passed over the extremities

of the needles, and the veins are divided subcutaneously between them. A very thin knife is introduced horizontally, with its edge directed upward or downward. This passes, like the needles, between the vas deferens and the affected vessels. This part of the operation may be performed while the affected veins are retained between the finger and thumb. The edge of the knife is then turned forward, and the cluster of veins divided toward the skin. In doing this, it is convenient to place the fleshy part of the thumb of the right hand over the veins, in order to prevent their yielding before the knife. When the knife is introduced, care should be taken that it is not passed below more veins than are included in the ligatures. . . . . The elastic bands and needles may be removed on the third or fourth day after the operation. The divided vessels will at that time be closed by lymph effused from the surrounding cellular tissue. In three or four more days this lymph will have become firm, and the veins permanently obliterated."

Mr. Lee states that his experience of this operation has now become extensive, and he has met with such an amount of success in the way of radical cure, and such an entire absence of any dangerous effects, that he feels there need be no apprehension about its adoption.

Ethereal Pyrotechnics.

A correspondent of the *London Lancet*, October 27, relates the following:

"A gentleman calling to have a tooth extracted, I proceeded in the usual way. Having applied a small piece of cotton-wadding over the tongue, with the view of protecting it from the fluid which I was about to direct upon the upper jaw, I commenced business. I should say that in *every* preceding instance I have used a candle, to throw a better light into the mouth. This is held by the assistant not nearer than half a yard from the seat of operation. In this case it was done also. And now comes the terrible scene. I had scarcely used the ether (pure rectified) for twenty seconds when suddenly a volume of flame rushed from the patient's mouth, enveloping the three of us for a single instant. It was so soon over that the patient had not time to rise from his seat, and the assistant and myself remained in our former positions. There was no explosion; all was quiet. After regarding each other for a few moments, I ventured to inquire of the patient how he felt. I was happy to see a smile, rather ghastly nevertheless, illumine his pale countenance; but his only answer was, "What a wonderful occurrence!" There was no smell of scorching; the only injury sustained being a slight singeing of the more prominent hairs of his moustache. The assistant and myself were untouched. This was certainly an unexpected and terrible occurrence, though fortunately unattended by any untoward result. The patient's complexion was of a healthy, ruddy color on sitting down for operation; but this soon gave place to a ghost-like pallor; and when I beheld the flames gushing forth from the mouth, I almost believed it was a veritable fire-demon sitting before me. He certainly did not look ethereal. The only unpleasant feeling he experienced was a sense of constriction round his neck. He is nothing the worse for it; n fact, better, as he has not felt a twinge of toothache since.

"Now, sir, cases like these are not to be made *light* of. The cause of the mischief might be attributed to the candle. If so, then why did the same effects not ensue in preceding instances, as the same precautions were adopted? I should esteem it a favor to be informed if any rules are laid down for operating in gas-light, as till then I shall be obliged to desist."

[This reminds us of a case which occurred a few years since in Kentucky, and which was described to us by the practitioner in attendance. A patient was suffering severely from colic and intestinal obstruction. Ordinary remedies proving of no avail the practitioner administered an enema, which contained sulphuric ether. Feeling that he was about to have an evacuation, and there being no other convenience at hand, the patient rushed for the stone hearth in front of an old fashioned fire place, in which a huge fire was blazing. An enormous discharge of wind was the first to escape, and from the patient's proximity to the fire a pyrotechnic display resulted, which utterly astounded both physician and patient, the hasty retreat of the latter across the room, leaving, like a meteor, a dazzling train behind! Like the case above related, "the patient felt none the worse for it; in fact better," and of his colic he was entirely relieved].

Druitt *versus* Druitt.

A specimen of very careless writing by an author whose text-book on surgery has a wide circulation, may be found in Druitt's *System of Modern Surgery*, last American edition, pp.121, 133:

"Epithelial tumors usually exude from a cut surface a copious, clear, serous juice, in which may be observed floating masses of epithelial cells, nuclei, and perhaps oil globules, and cholesterine," p. 121.

Under the head of "General Diagnosis of Tumors from Cancer," p. 133, we find the following:

"Moreover, epithelial tumors yield no juice, or if a liquid be squeezed out, or scraped up," etc., etc.

In the ninth London edition, 1865, the same incopsistent statements remain uncorrected.

A New Probe.

Dr. V. Gelcich announces in the San Francisco *Medical Journal*, that by using a white pine probe he has been enabled to find bullets, the marks of the lead showing on the wood, whereas they never show on a steel probe. Dr. Gelcich says: "I have by means of this simple instrument, while a medical officer in the United States Army, saved the limbs of two men, in whose cases amputation was about to be resorted to for gunshot wounds of the lower extremities—what was long supposed to be bone proving, by the aid of the white pine probe, to be the ball." The editor of the *Journal* says: "The idea is so practical that it appears strange that no one had thought of it. We have put the discovery to test by applying pine and other white woods to metallic lead, and comparing the impression with that made on the porcelain probe, first introduced by Nelaton in his treatment of Garibaldi; and we are satisfied that the wood receives the impression quite as visibly as the porcelain."

PRACTICAL MEDICINE, PHYSIOLOGY AND CHEMISTRY.

ART. I.—*On the Treatment of Pulmonary Consumption by Hygiene, Climate and Medicine.* By J. HENRY BENNET, M. D.

In my younger days this fatal and cruel error was carried to an insane extent by many medical practitioners, as it still is in most parts of the continent, and especially in Germany. The windows were often hermetically shut, and paper pasted over the chinks. The doors were made double, and one always shut before the other was opened. The healthy friends of a patient considered it a penance and a trial to have to remain in the polluted atmosphere "necessary" for the miserable sufferer, and often paid for their devotion by the loss of their own lives. On the other hand, the wretched patients suffered from constant suffocation as well as from a steady aggravation of the symptoms of the disease. This suffocation, the mere result of want of pure air, was called dyspnœa, and treated by opiates and sedatives instead of by opening the windows.

All my consumptive patients, whatever the stage of the disease, live night and day in a pure atmosphere, obtained by allowing a current of air to pass constantly through the room, either by a more or less open window and open fireplace, or by a door opening on a well-ventilated staircase if the weather does not admit of the window being even slightly open. Rational, reasonable ventilation is not encompassed, however, without trouble and discrimination for human beings any more than for plants, although it is to be accomplished. Since I have been an invalid I have devoted much time and study to horticulture, and have had former convictions as to the necessity of efficient ventilation thereby confirmed. Plants under glass, too crowded and not well ventilated, soon sicken, wither, and die. To well ventilate them, enough and not too much, requires constant trouble, attention, and good sense on the part of the gardener; in a word, exercise of both judgment and discrimination.

Consumptive patients bear ventilating perfectly well, as well as healthy people, day and night. They neither get pleurisy nor pneumonia, nor are their coughs aggravated by breathing pure cool atmospheric air night and day; whereas all these evils pursue those who are shut up, as are the numerous continental patients whom I see in consultation with their own doctors every winter at Mentone. Moreover, suffoca-

tion, medically called dyspnœa, is all but unknown, even in the latter stages of the disease, to those who are allowed plenty of fresh cool air. It soon comes on, however, if the window is shut and the room becomes close. These persons, accustomed to free ventilation, *will* have more air; indeed, I often stand aghast at the amount of ventilation such patients, previously freed by me from groundless fears, insist on having. All who have damaged lung-tissue, unless accustomed by long habit to a close atmosphere, feel more or less oppression in a confined atmosphere, owing to the diminished field of their respiration. A concert room, a theater, a close chamber at night, bring on dyspnœa all but immediately. This I have learnt from personal experience, and thus most fully can I sympathize with my patients. I fully admit, however, that free ventilation without dangerous draughts is difficult to attain, and that it is much more easily and safely accomplished in a southern than in a northern climate.

Before I leave this subject I would draw attention to the physiological fact that the lungs are made to breathe cold as well as warm air—indeed, air of any temperature from zero to 100° Fahr., just as the face is made to bear exposure to the external atmosphere. How could the lungs be protected?—if they required protection, which they do not. Domestic animals that live out in the open air winter and summer are freer from colds than those that live in warm stables; and men who are much exposed, and constantly breathe air at low temperature, are less liable to colds and influenza than those who live constantly in warm rooms. All who have horses are aware that to keep a stable warm is the surest way for the inmates to suffer from constant colds.

I may mention two facts that aptly illustrate the evils of defective ventilation. Some years ago I was riding in the Highlands of Scotland with a local proprietor, when we came upon a village of well-built stone houses with slate roofs, which strongly contrasted with the miserable shanties or hovels generally met with. On my complimenting him on his rebuilt village, he told me that he had acted for the best in erecting these good weather-proof houses for his tenants, but that, singular to relate, they had proved more unhealthy than the miserable dwellings which their occupants previously inhabited. Fever and other diseases had proved rife among the latter. On examination, I found that the windows were fastened, and never opened; and I have no doubt that their comparative unhealthiness was in reality owing to their being quite weather-tight, and consequently unventilated. In the miserable hovels they previously inhabited, if the rain of heaven came in, so did pure air.

The other fact is narrated by Prof. Hind in a recent interesting work on Labrador. Consumption appears to be all but unknown to the natives living wild in the fastnesses of this desolate region, in tents made of spruce branches imperfectly lined with skins, and more or less open on all sides to the external air; although they are exposed to famine and every species of hardship. But when these same natives come down to the St. Lawrence to take a part in the fisheries, occupy well-built houses, and, being well paid, live in comparative luxury, most of them in the course of a year or two become consumptive and die miserably. I am fully impressed with the idea that the development of the disease under these circumstances is the result of their living in closed houses in a vitiated atmosphere, as it no doubt is in our own towns.

Attention to the functions of the skin is, I consider, next in importance to attention to food and air—that is, to digestion and to respiratory nutrition. The skin has very important eliminatory functions to perform. It is by excretion through its pores that the economy partly throws off the effete or used-up carbonaceous and nitrogenous elements of the system. This is illustrated by the strong odor of the cutaneous secretion when not washed off. Moreover, the skin and the lungs seem partly to replace each other in this work of excretory purification. In warm summer weather the skin and liver act freely, and the lungs and kidneys are comparatively at rest. In the cold damp weather of winter the pores of the skin are closed, and it rests, the lungs and kidneys taking up the excretory process. Thence probably the feverish colds of damp cold weather. The blood is poisoned with the elements that the closed pores of the skin should have eliminated, which occasions the fever; whilst the lungs often succumb to the increased duties they have to perform, and inflammatory affections supervene. Whatever the explanation, the fact is certain, and it is now well established that the best mode of preserving the respiratory organs from winter colds is to keep the pores of the skin open by the use of cold or tepid water, combined with friction; or, in other words, to keep the cutaneous excretions up to their normal standard.

Acting in accordance with this view, I make all my consumptive patients, whatever their condition, if they have the strength, use a sponge-bath at a temperature of from 64° to 68° daily, and with the greatest possible benefit. I neither have to contend with hemorrhageor chills, nor with aggravation of the cough, but quite the contrary. The cold sponge-bath produces in nearly every instance a feeling of indescribable comfort, and lowers the pulse. The contact of the cold water may

accelerate the expectoration of the muco-pus collected during the night in the bronchial tubes, but that never alarms when it is explained that such a result is naturally to be expected. I myself derived the greatest possible comfort and benefit from cold sponging in summer in the open air on the banks of a Scotch loch, the waters of which were at 60°; and that when I was very ill, pulse 100, and skin hot and feverish. This gave me a confidence I have never lost, and of which I have never had reason to repent.

The question of exercise is an important one, and one that requires discussion and elucidation. I would say at once that, from personal experience and observation, I believe it is a great mistake for consumptive patients to take much active exercise. Every winter I see some such patients walk themselves to death. They have been told by their medical attendants at home to take exercise, and they do so, thinking that what gave them an appetite and did them good when well will do so now they are ill; but they merely walk themselves into their graves. The disease from which they are suffering is one of debility. The strength of former days has gone out of the youth and of the man, although perhaps he knows it not. Or the strength he has is fictitious, unreal strength, the result of a febrile condition, of a state of morbid nervous excitement. So he walks up hill and down dale, loses his appetite, can not eat, becomes "bilious," is dosed for liver, and the disease progresses rapidly. Every winter, toward January or February, some invalids consult me who have up to that time taken their case in their own hands, and have thus walked from breakfast to dinner, with the healthy, in order to gain strength. But they have lost it indeed—have became paler and thinner; and when I see them, I find that they have lost ground, that the disease has gained upon them since they arrived in the autum, and that they are decidedly worse—all from over-exercise.

The sound rule for a consumptive patient is to take passive exercise, not active; to ride in an open carriage; to be rowed in a boat; to sit and lie hours in the open air; to live with windows open, but never to incur great muscular exertion. The amount of vital power in such cases is small. If it is too freely expended in exercise, there is not enough left for normal digestion; food is imperfectly assimilated, nutrition is defective, and the disease progresses.

A singular, but explicable fact is, that during the existence of active disease, when tubercles are forming and softening, very often no lassitude is felt on exertion. But when the disease is arrested, and a curative process has been set up, extreme debility and lassitude may be

experienced and complained of, lasting for months, or even years. I felt this lassitude for five years. The explanation is simple. As I have already stated, in active disease there may be a false, feverish strength, like that of the delirious patient whom it takes half a dozen men to hold. In the curative stage, the false strength is gone; the real condition of the patient comes to light, as it does with the delirious patient when the delirium is gone, and he can scarcely lift his hand from the bed.

The social and mental hygienic condition favorable to the treatment of consumption may be summed up in a few words. Rest, repose, the absence of the ordinary duties, cares, harass, and worries of life. To obtain these is difficult in the social medium in which the disease has appeared. Therefore, the duties and obligations of life should be surrendered for a time, if possible; modified, diminished, if not. Those, however, have the best chance of arresting the progress of disease who can escape from the social medium in which it appeared. To do this it is always necessary to make great sacrifices—sacrifices which many can not make. But those who can must remember that the struggle is one, not merely for a higher or lower stage of health, but for life itself.

Medicinal Treatment of Phthisis.—I have now reached the most difficult part of my subject, one that still affords great room for difference of opinion, even if the premises contained in the previous papers are admitted. It would be vain to endeavor to reconcile the conflicting views which reign in the profession respecting the therapeutics of phthisis, so I shall confine myself to a statement of the conclusions at which I have arrived from my own personal experience.

As that experience has increased, I have gradually arrived at the conviction that there is no medicinal panacea for pulmonary tuberculosis, any more than for any other form of tuberculosis. There is no one remedy, in my opinion—no one drug that can act as an antidote to this morbid diathesis; neither cod-liver oil, nor iodine, nor iron, nor the preparations of phosphorus, nor any other pharmaceutical agent. Those who believe that there is such an antidote appear to me to ignore the very nature of the disease, not to be aware that it is merely the local evidence or symptom of exhausted vitality, of general vital decay, a mode of death manifesting itself as the result of worn-out organic power.

Such a condition is not to be remedied by physic, but mainly by physiology, with physic as an adjuvant, a handmaiden. It is only by removing all the causes that are depressing life, contrary to the healthy development of the functions of life, and by placing the sufferer in the

most favorable hygienic conditions for the development of his organization, that we can hope to arrest or cure such a disease. Here, again, horticulture has been of use to me. If a plant is failing because it is of a bad stock, or because it is placed in conditions of air, moisture, sun, shade, or soil, unfavorable to its habits and nature, it is not by adding this manure or that to the soil in which it grows that it can be restored to health. All such efforts are vain. Its nature and habits must be studied, and then the conditions favorable to its healthy development in every respect must be adopted. Once this is done, a favorable change must take place, provided its vitality be not already too far depressed, or provided disease has not advanced too far to admit of recovery. At the same time, well chosen manures, the addition of a necessary element deficient in the soil, will materially help the horticulturist.

So it is with physic in phthisis. Although no mere drug can give new life to a decaying organization, can arrest and cure a disease in itself a mere symptom of such decay, an enlightened use of medicinal agencies may do much to aid improved hygienic conditions, in rousing and restoring vitality, and in arresting the progress of disease. There are many stumbling blocks in the path of consumptive invalids, many conditions of disordered functional activity, which render the most hygienic treatment nugatory, and which physic has the power to modify and remove. Such are disordered conditions of stomach, liver, and intestines; morbid states of innervation, cerebral and spinal; uterine, vesical, rectal complications, functional or local, all of which are more or less under the influence of medicine.

To meet these and other complications we have numerous and valuable medicinal agents at our call: mineral acids, alkalies, vegetable bitters, sedatives, narcotics, alteratives, astringents, all of which in turn do good service in the hands of the experienced physician. There are few stages or conditions of the disease in which such a practitioner does not find an important indication, something to do medicinally, by which nature and hygiene may be assisted in their operations. I am a firm believer in physic, and seldom or ever leave my consumptive patients entirely to nature. I firmly believe that I can help them by the application of rational therapeutics, and try to do so. When myself a consumptive invalid, for many years I was always doing something in the way of medicinal treatment; and have the decided conviction, right or wrong, that I increased my chance of recovering by thus meeting the varying phases of my own case.

Having laid down on a broad basis the principles which should, in

my opinion, regulate the treatment of phthisis, I have a few words to say on some of the therapeutical agents which stand highest in the professional mind, pre-eminent among which is cod-liver oil.

Professor Bennett, of Edinburgh, first introduced this agent to the profession in Great Britain, in a work written, *ex professio*, on the subject in 1842. He had found it extensively given in Germany; and in this work communicated to his countrymen the experience of his German friends, as also his own. A few years later, Dr. C. J. B. Williams, our most eminent and enlightened thoracic pathologist, gave cod-liver oil the sanction of his great experience. From that time its influence in favorably modifying nutrition, and in arresting tuberculosis in the lungs, has been universally acknowledged; so that now it has become the great remedy for consumption, and that most deservedly. Some of our American brethren state that, since its general use in phthisis, the mortality from the disease has sensibly diminished, and, as a result, that the general death-rate is lower.

The question naturally presents itself, if cod-liver oil undoubtedly exercises a beneficial and even curative influence on pulmonary tuberculosis, why and how does it produce this effect? Chemical analysis of fish-oil does not give a clue, for the amount of iodine and bromine discovered is so infinitesimal that we can hardly admit that theirs is the potent influence: especially when we find that, administered alone in these or even in larger doses, the therapeutical effect is not produced. To discover the clue we must fall back upon physiology.

It is now generally admitted by physiologists that fatty substances, if not absolutely essential to digestion and nutrition, exercise a most beneficial influence over these processes; indeed, nature appears to have placed fats within the reach of man all over the world, and to have implanted instinctive craving for them in mankind. In northern climates, the natives consume largely fish oils alone or with their food; in temperate climates butter and meat fats take their place; while in subtropical regions, vegetable oils, such as olive oil, form an important element of the food; even in the tropics there is the palm oil, and gee, or butter, to satisfy the absolute want of fatty substances. From physiological requirements to those of the morbid condition of nutrition which constitute tuberculosis there is only a step, which observation has made. It has been long remarked that in these morbid conditions of the human economy a larger amount of fatty nutritive elements than is necessary for food becomes a means of restoring nutrition to a more healthy state, and thus that these become positively therapeutical agencies.

If this view of the action of cod liver oil is the correct one—if in giving it we are merely ministering, in an exaggerated degree for therapeutical purposes, to a natural health requirement, any fatty substance would have the same result. Within certain limits I believe that such is the case: cream, fat meat, vegetable oils, bacon, butter, etc., all answer the physiological condition; and I invariably give them, if possible, when the patient's stomach can not bear the fish oil. But I also believe with the rest of the profession, that the fish oil is the best, is the easiest digested and assimilated, and is the fat to which the stomach gets the soonest reconciled, and which it can take the longest. I myself took an ounce and a half a day for five years without intermission, at last with pleasure, and always with benefit to the digestive processes. A medical friend of mine, well known to the profession, who has, like myself, saved his life by the combined influence of hygiene, climate, and physic, could never take cod liver oil; "but then," says he, "I took fabulous quantities of butter with my meals."

It is a known and admitted fact that the greater number of those who now recover from phthisis are persons who have taken cod liver oil. This fact certainly redounds to the credit of the remedy, but it must be remembered that those only can take it in whom the digestive organs are in a sound condition naturally, or in whom they have been restored to a sound condition by proper medical treatment. Women in whom uterine disease sympathetically produces nausea and sickness —those who are suffering from chronic dyspepsia, or from chronic liver or kidney disease—generally speaking, can not take the fish oil; it nauseates them, makes them sick, and destroys their appetite, as often as do all fatty substances. Thus, the recovery of those who can, and do, take cod liver oil may be not so much because they take it as that their digestive system is sound, and that they can take and digest fat and plenty of good nourishing food besides. On the other hand, those who can not take the oil, and die, may die not so much because they do not take the oil remedy, as that their digestive system is bad, and can not be restored to a healthy state, so as to admit of the food-cure.

The undoubted improvement of the majority of the consumptive patients who can take cod liver oil or other fats, in health, in strength, and in condition, has received additional and most valuable explanation and confirmation from some recent interesting physiological experiments. These experiments have been made during the last year by Dr. E. Smith, the Rev. Professor Haughton, Dr. Frankland, and Professors Fick and Wislicenn, of Zurich, with a view to arrive at a clearer notion than we had before respecting the strength or power shown or spent by

animated beings. They have been carried on under the influence of modern views respecting the correlation of physical forces, and the doctrine of the conservation of force, and of the equivalency of heat and mechanical force. The generally-received physiological idea of nutrition is, that nitrogenous or albuminous food, by the process of assimilation, is transformed into muscle and force; whereas carbonaceous, fatty, amylaceous food is burnt, and generates animal heat. The experimentalists whom I have quoted appear to have satisfactorily established that the production of the muscular power spent by animals and man is not so much to be attributed to the assimulation of nitrogenous food as to the slow combustion of carbonaceous food. According to this theory the formation of animal heat by the combustion of carbon is attended with the development of "force," of which the muscles may possibly be only the instruments, not the producers.

This view may be familiarly explained by the steam engine: the latter, in burning coal, does not only produce heat, but power—the power that drags the train along. In a more obscure but equally evident manner the slow combustion of food in the processes of nutrition is attended with the development, not only of heat, but of power—force. If the above views are correct, it would follow, singular as the statement appears, that more power or strength is to be got out of fat than out of meat or muscular tissue; and this really appears to be the case. Tyrolese chamois hunters find that they can endure greater fatigue on beef fat than on the same weight of lean meat; and accordingly, when about to absent themselves for several days in the mountains, they take beef fat with them instead of meat. (See *Intellectual Observer*, July, 1866).

Thus is explained the craving of mankind for fatty food, and for carbonaceous food generally. Thus is illustrated the generally acknowledged physiological principle that man is omnivorous, and is also explained the strength of the rice eating Hindoo and of the potato eating Irishman. A rational dietary is evidently the one in which nitrogenous and carbonaceous food are mingled in due proportion.

Lastly, we may safely conclude that fats are not "bilious"—bile producers, as popularly believed; but that the inability to digest them is merely an evidence of defective, or of weak and easily disturbed, digestive powers. The great majority of those whose digestive system is in good order digest fats with the greatest ease, and that in large quantities. The dislike so often shown to fat by persons in good health is often merely a result of education—of mothers most foolishly and erro-

neously picking out the fat from their children's food in early life "as unwholesome and bilious."

Iodine has a great reputation in the treatment of other forms of tuberculosis, and especially scrofula, which may be said to be almost the same disease. I presume this reputation is a deserved one; but as iodine is always administered conjointly with a generous dietary, and with hygienic treatment generally, it is very difficult to form an estimate as to its real value. In pulmonary phthisis it certainly does not appear to me to exercise much influence; and as it is apt to disorder the stomach and to interfere with the appetite, I now seldom give it internally. I constantly, however, use it externally, over the diseased regions of the lungs, as a counter-irritant, and to promote absorption of adhesions.

Once it is admitted that the treatment of phthisis ought to be sthenic —invigorating, not antiphlogistic or debilitating—iron and its preparations naturally present themselves to the mind. I have often administered them, and I believe with benefit, in the stage of convalescence; of retrogression, when tubercle is no longer deposited, but in process of absorption or cretefaction; and when the period of debility and lassitude supervenes. I have also given them during the acute stage, but I think without beneficial result. Indeed, at that stage they appear to me, like iodine, often to disorder the stomach, and to interfere with the appetite and digestion. When I observe this under any modification, I at once stop the remedy, firmly believing that food is of more value than physic if the choice is between the two. It is a remarkable fact, that no physician writing on chalybeate or iron waters recommend them for active phthisis; indeed, the opinion that they are dangerous appears to prevail.

Preparations of phosphorus, and especially the hypophosphites of soda and lime, were introduced by Dr. Churchill some ten or twelve years ago as a positive remedy for pulmonary phthisis. This is still Dr. Churchill's belief; and I, who have known him from early life, am convinced that he is sincere—that he really believes that he has found an antidote, a remedy for pulmonary consumption. The subject has of course much occupied my thoughts, and during the last seven years I have administered the drug to a large proportion of those whom I have attended.

Were I only to quote the successful cases that I have had under my care, the cases in which the tubercular disease has been arrested and even cured, I could furnish Dr. Churchill with many instances of cure, myself included, which have apparently taken place under the influence of the

hypophosphites, as they were long or constantly administered. But, on the other hand, I have quite as many, perhaps more, cases of death to narrate in patients whose condition admitted of recovery from the extent of the disease, and who perseveringly took the hypophosphites from the beginning to the end.

Were the preparations of phosphorus given really an antidote to the disease, and the cause of the recovery in the first class of cases, they ought to have cured many of the latter, for they were all placed under the same hygienic and social conditions. The scrutiny and comparison of these cases of success and non-success, however, have left in my mind the conviction that the different results obtained are to be explained by considerations of general pathology, by the type of the disease, the constitution of the patient, the conditions under which it was generated, and that the patients were not taking a remedy that had the power to control antecedents and conditions unfavorable to recovery. It is worthy also of remark, that I have always administered either Dr. Churchill's own preparations, or salts furnished by his own manufacturer, so that there is a certainty as to the genuineness of the drugs used.

Although not admitting that phosphorus and its preparations are an antidote to pulmonary phthisis, for I have seen too many cases of failure to be able to admit it, I believe that they constitute a valuable medicine in asthenic disease, and especially in tuberculosis. Their administration, also, is quite rational physiologically, and I may say also agriculturally. Phosphate of lime is one of the principal elements of our economy. It forms the bones, and is found in our tissues, and especially in the brain and nervous tissues. It is sound physiology and pathology to give freely to the animal system in food, or as physic, the elements of which that system is composed. If it is right to do so in health, it is equally so in disease. In tuberculosis, observation shows that it is right to increase the usual amount of fat given in the system, and my observation seems to show me that it is equally right to increase the amount of phosphates. Phosphorus is only contained in limited amount in our food, although it exists in so large a proportion in our system. Its administration in a disease of debility may, in my opinion, be compared to manuring an exhausted field. If corn is grown several years in succession in the same soil, the crop at last fails for want of phosphate of lime, which is necessary to form the grain. Add bone dust, or phosphate of lime, and the corn comes up vigorously, and the grain forms heathily and well. It is in this sense that I give the preparations of phosphorus, and that I myself took them for five years.

The above views must have gained greater credence and weight with

the profession than is generally admitted, for I seldom am consulted by a new patient at Mentone, each successive winter, without finding that he or she has been taking phosphorus in some shape or other, and that when their prescriptions are signed by the heads of the profession. Indeed, although I do not think Dr. Churchill is warranted in claiming for phosphorus the position which he gives it as a "remedy," for pulmonary consumption, I consider that the thanks of the profession are due to him for directing our attention to a valuable therapeutic agent in this dread disease.

In a sthenic, or strengthening treatment such as I describe, in the curable stage of the disease, opiates can have but little place. What availeth it to allay irritation, to quiet the cough, and procure sleep, if thereby the appetite for food is destroyed, as is usually the case the day after an opiate night draught? Is it not better that the patient should have a moderate amount of distress and discomfort and eat, if eating is life and fasting death? In the latter stages of disease, when all hope of recovery is gone, and it is merely a question of soothing the last stage of life, then opiates become an inestimable blessing in judicious hands. There are, however, other sedatives—prussic acid, hyoscyamus, belladonna, conium—from which much ease may be obtained in the earlier stage of the disease, when there is still hope of recovery.

As to expectorants, I can not say that I have much faith or reliance in them. If muco-pus is abundantly secreted, it is better away, and nature expels it by the natural and then easy process of coughing. When secretion diminishes, as it does as the disease diminishes, and the patient coughs spasmodically to get rid of a sticky, tenacious secretion, which causes tickling and irritation, I do not see what good is done by loosening it, as the term is, by squills, etc., even if they have the power to do so, which I doubt. The real remedy is an effort of strong will on the part of the patient to repress coughing until the natural action of the bronchial villi has pushed the muco-pus into the larynx, whence it can easily be expelled. My attention was first drawn by Professor Bennett to the fact that the dry, irritating cough for which expectorants are generally ordered is often merely the result of positive improvement, and is best left alone.

The local inflammations of pulmonary tissue around softening tubercles, the local pleurisies which are the result of tubercular deposits reaching the surface of the lung, are no doubt benefited by counter-irritation—painting the chest with caustic iodine, by croton oil liniments, by small blisters, etc.; but I question whether much good is done by issues. Indeed, I think the pain and annoyance often counterbalance

all the good done, and that the remedy is out of all measure with the benefit obtainable by its employment. The inflammation can only be radically cured by the natural subsidence of the causes of internal irritation, which the counter-irritation of the issue does not in the least control.

A volume might be written on the treatment of phthisis according to these views; but I purpose limiting myself to the above brief geneaal exposition, leaving my readers to fill it up themselves. I have now only to devote a page or two to the consideration of the "results of treatment," and I shall have accomplished my self imposed task.

Having briefly analyzed the nature of pulmonary tuberculosis, and described its treatment by hygiene, climate, and medicine, I am desirous, in conclusion, to say a few words on the results obtainable, in accordance with my experience, by the employment of these means.

As I have already stated, by combining the various agencies which I have described, and which constitute what I have termed the modern treatment of phthisis, many patients may be and are saved; but many still die, and must ever die. The question I now purpose investigating, as far as possible, is: who are those who may live, and who are those whom all the resources of our art are unable to rescue from death? The answer to this question can only be approximated by referring to the laws of general pathology, by analyzing the type of the disease, the circumstances under which it was generated, its stage of development when discovered and first treated, and its complications.

All diseases are greatly modified in their symptoms and progress, as also in the results of the treatment to which they are subjected, by the form or type which they assume from their first development, and none more so than pulmonary consumption. This disease may be acute or chronic.

In the acute type, phthisis may run through all its stages in a few weeks or a few months. I have known patients seized with a series of febrile symptoms, having all the appearance of typhoid fever, and die in four or five weeks. On a post mortem examination the lungs have been found full of miliary tubercles. No treatment has or can have any influence whatever on the termination of such a case; the patient is destined to die from the first day. In other equally fatal cases of acute phthisis, although the disease does not assume the foor mf a continued fever, and occupies several months, instead of several weeks, in passing through its successive stages, there is no lull whatever, no interval of arrest. The lung-tissue is progressively invaded by tubercular exuda-

tion, which rapidly softens, so that both lungs soon become a mass of advanced disease, and the patient dies without the disease having experienced any remission. What can medical science, climate, or hygiene do in such cases? Most surely is such a disease a mere mode of dying. Indeed, it is a question whether the most active and judicious treatment much retards the fatal issue.

Acute phthisis is much more frequently seen in youth than in middle or advanced age. The disease participates in the vigor and energy of the vital functions in early life. I consider it to be the evidence of a profound and final decay of vital power—so profound that there is no effort whatever made by the economy to contend with the evil that attacks it. The cause of acute phthisis must be sought for in the exaggeration of all the causes, hereditary and social, that produce the disease, and perhaps in their concentration in the same individual. Thus I have repeatedly witnessed it in persons who, with the hereditary predisposition or taint, have been exposed to extremely unfavorable hygienic conditions—town life, bad and scanty food, contaminated atmosphere, and great sorrows and cares.

Next in gravity to acute phthisis is the type of the disease in which the tubercular formation takes place, not in isolated patches, but all over both lungs simultaneously, at the apex, in the center, and at the base. If the patient dies from other disease in the early stage of this form of phthisis, the lung is found studded with crude tubercles in its entire extent. When they soften simultaneously as they often do, the secondary bronchitis is generally severe and the constitutional symptoms are very marked.

There are many degrees of intensity in this type of the disease; but the more the case recedes from tubercular development localized at the apex, the favorable type for treatment, the more serious is the prognosis.

When phthisis assumes the chronic type, as is generally the case, most fortunately, an unfavorable form for treatment is that in which disease shows itself in the midst of very favorable hygienic and social conditions. If a poor semptress, half starved, made to work eighteen hours out of the twenty-four in a polluted atmosphere, living in a state of constant mental depression, becomes consumptive, common sense tells us that the disease may have manifested itself from the action of removable causes. If she can be placed under more satisfactory hygienic and social influences, she may therefore, and often does, recover. But if, on the contrary, the disease appears in one who has been bred and

nurtured in the lap of luxury—who has known no hardship, no privation, no sorrow—of course the prognosis is more unfavorable.

It must be more difficult to arrest the progress of disease in such cases, for probably the cause is some strong hereditary predisposition, some defect originating with the progenitors, or some defective condition of individual innate vitality. It is in such cases, more especially, that every thing should be done that is humanly feasible to arrest the disease, that no agency should be left untried that can possibly rouse the vitality of the patient. It is in such cases that he or she should be at once removed from the social medium in which the malady has been generated, in the hope of counteracting some unknown, unrecognized, and yet powerful home antagonistic influence. A change of climate is of inestimable value with these patients; indeed, it may be the only chance of arrest or recovery. Every thing that is done, likewise, should be done from the very first; no time should be lost, for the foe is a most formidable one from the onset of the attack.

A class of cases still more inamenable to curative treatment is that in which there are serious complications present. Phthisis not unfrequently comes on in persons advancing in age, between thirty and sixty, who have led a hard life, who have taken large quantities of stimulants, and have exhausted perhaps an originally good constitution by excesses of various kinds. With them the stomach is generally out of order, the liver is often diseased, and sometimes the kidneys. What can treatment do in such cases? The disease may be considered a general break-up of the constitution, and the most judicious and persevering treatment seldom does more than retard the fatal termination.

Again, phthisis may attack at puberty those who during childhood have suffered from scrofula. This is a grievous and serious complication, but by no means so unpromising as those just described. Tuberculosis, or tubercular exudation, affects different organs at different periods of life. In infancy and early childhood it more especially attacks the meninges and the mesentery. In childhood and until puberty it attacks, in preference, the glandular structures of the neck, the extremities of the long bones, and the spongeous tissue of the bones in general, giving rise to the diseases of the articulations and bones which characterize scrofula. In early life, during my Paris career, I had charge for two years of a scrofulous ward of eighty young females, from fifteen to twenty years of age, in the hospital of St. Louis. They had nearly all glandular swellings, with or without scrofulous disease

of the bones, ankles, knees, elbows, and a sad assemblage these poor girls were.

On several occasions I carefully examined the lungs of all my young patients, for I was publishing the clinical lectures of my master, the celebrated Dr. Lugol, and was much interested in every thing connected with the pathology of scrofula. He wished to establish the connection between scrofula and pulmonary consumption, and I found the evidence of localized tubercular deposits in the lungs of many of these scrofulous girls. The tubercular lung deposits were met with more especially amongst the elder ones, and that often although the patient presented little or no evidence of their presence. Dr. Lugol told me that he had long found this to be the case with his young scrofulous patients. When death, through accidental disease, afforded an opportunity for the post mortem investigation, the development of tubercles in the lungs of scrofulous youths was much more frequently observed in those who were arriving or had arrived at puberty than in those who were younger. Such tubercular exudations often remain crude and dormant for years, but when they assume a more rapid development and soften, the previous existence of scrofulous disease stamps the case as serious, although not necessarily as fatal. In these patients phthisis seems to appear, in its progressive form, as a species of climax to the antecedent tubercular or scrofulous affection. The crude tubercles which co-exist with scrofulous disease in the young, in the latent form, are no doubt often present without giving rise to any symptom, and they may be subsequently absorbed and the patient may recover without their presence having been even suspected.

The more favorable type of phthisis, that in which rational treatment is the most likely to arrest the progress of the disease, and even to effect a cure, is that which may be termed accidental phthisis, in a chronic form, localized to the upper regions of the lungs. In this type of the malady there is no very decided hereditary taint, the patient is not born of very aged or very sickly parents, and does not present very serious complications in other organs, the evidence of a thorough and irremediable break up of constitution. Again, the disease generally manifests itself under unfavorable hygienic conditions, under the influence of overwork, sedentary town life, or harass, care, and anxiety. Sometimes in the most apparently luxurious and easy-going life some of these influences may be at work, so that appearances must not always be trusted. The habits and general life of persons moving in the highest circles, and having within their grasp every comfort, may be unhygienic. Moreover, they may be a prey, like humbler mortals, to cruel cares,

none the less felt for not being recognized. Their nights may be sleepless, their days without joy; disappointed affections, social ties, or ambition may deprave digestion, and pave the way to the inroads of disease. In all such cases we may reasonably hope that the old saying, "Sublatâ causâ, attolitur effectus," may be verified. If we can remove *all* the causes that are depressing vitality, and the disease is in an early stage of its development, we may hope firstly to arrest its progress, and secondly to effect a cure, and that at any period of life short of extreme old age.

Pulmonary phthisis in extreme old age—not so rare an affection as is generally supposed—appears to me an all but incurable form of the disease, a mere mode of dying. I saw a number of cases of this form of consumption in the year 1840, when in medical charge of the Salpétrière Hospital, Paris. This infirmary is fed by a population of three thousand five hundred old infirm women, between sixty-five and one hundred, all living within the walls of this magnificent institution. The disease assumes the form of chronic bronchitis, but is characterized, besides the stethoscopic and percussion symptoms, by a most unearthly degree of emaciation. In no other disease have I seen patients live in such a ghastly state of emaciation. They become at last like living mummies—nothing, literally, but skin, bone, and "concealed" organs.

There is a form of phthisis, of which I have seen a good many examples, although it is not generally described. It may be termed gouty phthisis, and the prognosis, I consider, is rather favorable than otherwise, especially in its early stage. Consumption and gout are considered by many physicians to be antagonistic, but experience has proved to me that such is not the case; and the discrepancy between the theoretical and the practical view admits, I think, of easy explanation.

Gout develope itself, primarily, in persons of healthy, robust constitution, who live generously. Their digestive system being good enables them to take and assimilate a considerable amount of nitrogenous food, and of stimulants, which appear to be the cause of gout developing itself. These people—the primarily gouty—do not become consumptive, for their vitality is high and antagonistic to a disease of debility.

But when such robust gouty people, who have themselves developed gout in their organization by a luxurious existence, marry late in life, as they often do, and have children, they do not generate children healthy and robust like themselves. Their children are often delicate, without being positively unhealthy; they have weak digestions, and

suffer all their life from what may be termed gouty dyspepsia. If their organization is not much tried they get through life very well, and may reach old age, even when suffering more or less from low forms of gout. If, on the contrary, they are much tried, body or mind—if they are placed for a continuance under unfavorable hygienic conditions, they fall below par, are liable to suffer from inflammatory affections of the aërial passages, which become chronic from lowness of general tone, and the deposit of pulmonary tubercle may follow. As I have stated, I do not think this form of phthisis an unfavorable one for treatment, for the constitution received from the parents is often originally a good one, merely weak and tainted with the low type of gout. There is often great latent vitality to work upon. My own case is one of this kind.

An all-important element in estimating the probable result of treatment—in forming a prognosis, in a word—is the extent of lung diseased when the patient is fairly brought under rational treatment. I often familarly compare the lung attacked with tuberculosis to a large house on fire. The fire may begin in the servants' rooms or garrets—that is, at the top of the lung, the most frequent original seat of tubercular deposit. If it can be put out before it has extended to the story below, but little inconvenience is afterward experienced by the owner of the house. He can live very comfortably in it under ordinary circumstances, only feeling there is "less room" than formerly on extra occasions, such as visits from friends. If the story below, or the two stories below, are destroyed before the fire is put out, he feels more or less inconvenience in his "daily" life, but still he can get on. But when all the house is destroyed except one room, or the cellars, it becomes quite impossible for him to live in it by any amount of contrivance. Moreover, it is all but impossible to save even that one room when the fire has reached this point.

So it is with the lungs, which are not renewed, restored, when once destroyed; for we do not renew our organs as lobsters are said to renew their lost claws. Once a portion of the lung is destroyed, it is destroyed forever, and its functions must be carried on by the healthy remainder. The only limit to curability therefore, in my opinion, is the fact of there remaining a sufficient portion of healthy lung to carry on the functions of hæmatosis once the progress of the disease is arrested. The amount of healthy lung tissue compatible with life evidently varies in different individuals according to their vitality. One lives long on a bit of healthy lung no larger than a small apple; another dies with even less than that in a state of disease.

The first and all-important point, therefore, is to arrest the progress of the disease, as it also is to arrest the fire in the house. Unless that can be done, in the one and the other case, the entire tenement will be destroyed, more or less rapidly. The living in the damaged tenement afterward is a matter of adaptation; and it is wonderful what either nature or man can and will do to adapt themselves to altered circumstances. We must also bear in mind that the more the fire or the disease has progressed, when it is first discovered, the more difficult it always is to arrest it.

Results of Modern Treatment—Prognosis.—When, by the combined influence of hygiene, climate, and medicine, the progress of phthisis has been arrested, crude tubercles have been absorbed or reduced to their mineral constituents, and cavities have been entirely, or all but entirely, cicatrized, it must not be supposed that the patient is well and safe. The recovery generally, always indeed, takes place through improved nutrition and often the convalescent consumptive patient is fat and rosy, and looks healthy and well. But these looks are deceptive, the result of a life passed under the most hygienic circumstances possible, in unnatural quiet and repose. At the bottom there is still the tubercular cachexia, which reveals itself by a want of power, by lassitude, and even prostration, if the habits of invalidism are abandoned, and the sufferer once more quits the shores of the stream of life for the rapid current.

Consumptive convalescents should consider themselves invalids for years, and it is only by doing so that they can hope really to regain a firm footing in life. They may aptly compare themselves to a railway truck, "warranted to carry six tons," which after having been smashed, and then mended, painted, and varnished, looks as good as new, but is not so. It may carry two or three, or even four tons safely, but no longer the original six, under penalty of a final catastrophe.

Those who can not, or will not, thus consider themselves invalids, despite the outer appearance of health, relapse, and then all but invariably die miserably, for nothing saves them. I have now seen many such instances. One or two winters passed in the south, and rational treatment, arrest the disease, and bring, with the improvement, delusive confidence. The patient either can not or will not listen to advice, and goes out again to fight "the battle of life," but only to relapse, and to return to the south in a hopeless condition.

What proves that even in those in whom the progress of pulmonary tuberculosis is arrested, tubercular cachexia, or defective vital power, long remains, is the frequency with which cachectic disease of another type subsequently attacks other organs. Thus last winter (1865-6) I lost at Mentone four patients from Bright's disease, all cases of arrested consumption. In one case consumption had been arrested for ten years, in another six, in a third two, in a fourth one. They all four died with all but complete lung quiescence;

serious infiltrations gradually rising until it reached the lungs, and then extinguishing life.

A year or two ago, some of the Parisian friends and companions of my younger days, now men of mature experience and occupying the most prominent positions in the Parisian medical world, gave me a dinner as I passed through Paris on my way south. After we had dined, my case was talked over, and one after the other gave the results of his experience of the treatment of phthisis. All believed in its curability; all could quote cases of arrest and cure in their practice; but one and all stated that many of these cases of arrested consumption had subsequently died of some other form of cachectic disease, and principally from albuminuria, like my four patients of last winter.

Thus, perseverance and energy are long required, not only during the course of treatment, but for years after, if a thorough recovery is made, or even if a prolongation of enjoyable life is to be secured. This is really one of the most trying features of the disease, even when successfully treated. If we succeed in escaping death, we must accept invalidism for a long period, perhaps for the remainder of our lives. I would remark, however, that this applies more to the middle-aged who recover from phthisis than to the young. The latter have such an amount of organic activity about them, the characteristic of early life, that if they recover completely they may, with care, and by leading a hygienic life, regain a firm hold on life.

To secure this result I often advise my young male convalescent patients to abandon, if possible, sedentary pursuits, and to turn their thoughts to out-door occupations. Our Australian and South African colonies offer valuable fields for such persons. Life in the bush, among cattle and trees, in a dry climate like those I mention, is certainly more favorable to prolongation of life in a tubercular convalescent patient than a city counting house. Had I myself been a younger man, I should have adopted this course. As it is, I have come as near to it as possible by becoming an "amateur horticulturist."

Foolish people have scarcely a chance of recovery—they must perish. They generally do every thing that is wrong and pernicious to please their own passing whims and fancies, and often look upon the friendly physician, who tries to rescue them from death, as one to be deceived and deluded. I repeat it, some unfortunate people have scarcely a chance of recovery. They have neither the sense to follow the right course when it is pointed out to them, or to grasp the hand of fellowship and sympathy when it is held out; nor will they sacrifice pleasure, money, or ambition to the pursuit of life. Indeed I consider a weak vacillating, peevish tone of mind, or an inordinate appreciation of, and clinging to, the enjoyments and possessions of life, to be as unfavorable an element of prognosis as any of those already discussed. Such mental conditions all but certainly preclude recovery, however favorable the case may otherwise be.

When I reflect on the convictions that have gradually gained ground in my mind respecting the treatment of phthisis—convictions embodied in this

series of papers, I am often saddened by the thought: How are the poor to struggle successfully with such a disease? If rest from weary labors, if protection from atmospheric vicissitudes, if ample, nay, a luxurious dietary, if expensive medicines such as cod liver oil, if change of climate, to escape winter cold and wet, are necessary, how can those who live by their daily labor—and even many above them in social rank—hope to escape from the grasp of this fell disease? Is not the battle itself for them a hopeless one?

To these questions I would answer, that, although the struggle for life can not, most assuredly, be made with the same chance of success by the poor as by those whose position enables them to do all that is calculated to arrest disease, yet their case is by no means a hopeless one. The means of treatment that I have recommended—hygiene, climate, medicine—may be attended to at home, in our own country, in the midst of the duties and occupations of life, although in a minor degree. I have met with cases of arrested and cured phthisis in persons who have never left England, and who have never given up their social pursuits; and so have other physicians. Some of the most satisfactory and conclusive cases given in Professor Bennett's valuable work "On Pulmonary Consumption," are cases of this description.

To attain this end, however, nothing should be neglected. Unhygienic, unhealthy occupation should be given up; all the rules of hygiene to which I have alluded should be scrupulously followed; out-door occupations substituted for in-door during the summer months, if possible; and more especially, town should be abandoned for the country as a residence, whenever feasible.

Cities exercise a mysterious attraction over the lower as well as the higher classes of mankind. It must be the feverish excitement of city life, the hope of greater social advancement; for the greater portion of the lower classes in cities live as hard or harder lives than they would if similarly engaged in the country. No doubt the vitiated air breathed in cities, in the close crowded workshops, and in the closer and still more crowded sleeping-rooms, gradually weakens the constitutional powers, and forms the principal predisposing cause of phthisis. The poor should return to their native villages, if by any means feasible, even if there they have to accept a lowlier position than that which they have attained. The younger members of the family, when attacked with phthisis, should be sent to board or work with country relatives. The country air would do them more good than all the physic they can get from hospitals and dispensaries in town, and give them a better chance of recovery. Indeed, it has often struck me that the funds of our city charitable institutions would be best employed by boarding their consumptive patients in farm houses and agricultural villages, than in maintaining them in the wards of a city hospital. Or the hospital itself might be placed on some healthy, pine-covered moor, like the Convalescent Hospital at Walton-on-Thames; and out-patients only seen in town.

It must be well understood that I am now speaking only of *curative* treat-

ment. If all hope of recovery has been abandoned, if the lungs are all but destroyed, and the disease can not be arrested—if an asylum to die in is all that is required—then it is of but little avail to drive the poor patient into the country, away from home ties and home assistance. Then, when the last scene is at hand, any asylum will do to die in—the small home, with dear friends around, the city hospital, the workhouse infirmary.

The researches regarding nutrition, to which I have elsewhere alluded, are consolatory as regards the poor. As long as we believed that, in the scheme of nutrition, meat meant muscle and strength, fats and cereals heat only, the poor at home seemed to have but a slight chance of recovery in asthenic diseases, diseases of debility. With meat, nearly a shilling a pound, how can they obtain ten shillings' worth each week? and if it is indispensable, how are they to get well without? But if, as is now stated—and, I believe with truth—meat is principally a muscle repairer, and the force created is in reality chiefly obtained out of the carbonaceous food, fats, and amylaceous substances, the chance of the poor is infinitely greater when "force" has to be regained. Oat meal, or any cereal, with milk and oil or fat, will, in that case, do as well as butcher's meat, and a few shillings a week will go as far as ten.

I have certainly, throughout my professional career, remarked, as already observed, that meat fed children, and great meat-eaters, are not stronger than other people. With children, indeed, I believe it is the reverse. The children whom I have attended, who have lived on meat, eating it three times a day—certainly not by my advice—have not proved as strong nor as healthy as those who have lived on a more mixed dietary. Compare these town-fed children, who eat from ten to twenty shillings' worth of meat every week, with the Irish or Scotch peasant children, fed all but entirely on potatoes and milk, or oatmeal and milk. These researches also explain the disastrous effects which have, in many instances, resulted from the very nitrogenous or animalized dietary recently vaunted as a remedy of obesity.

Of course, I am well aware that the advice I now give can only be partially followed, that there ever will be persons affected with phthisis in all classes of society, by whom it must be accepted as the decree of Providence, and who must struggle with it *in situ*. But even in such cases, in the earlier stages of the disease, a curative treatment may be attempted by all, even those whose means are small, or who depend on their daily labor for their bread. In more advanced disease, likewise, a lull may be taken advantage of to make the attempt. Pulmonary consumption does not usually progress steadily, uninterruptedly; its very nature is, on the contrary, to advance *per saltum*—by jerks, as it were. When not treated, it generally remains stationary, to again progress. We may take advantage of these lulls, which represent Nature's own unaided efforts to limit and control the morbid action in order to further hygienic treatment.

Following out this train of argument, I advise the young clerk, if able, as soon as a lull takes place, or is obtained by treatment, to give up sedentary pursuits, and turn farmer at home, in Australia, New Zealand, or the Cape.

I advise the young artisan to abandon the town, and to follow his calling in the country. I advise the maid-servant or semptress to leave the city, and to find service or work in some country place. Nearly all have country friends, who will help them in their efforts.

There was a time when, like my neighbors, in such cases, among the poor, I prescribed tonics, cod liver oil, and a generous dietary, and thought my duty performed. Now I have learned better; I have learned to place little confidence in the curative value of mere medicinal treatment, pursued for a time, then abandoned. If the patients, whatever their class of life, remain exposed to the influences under which the disease is generated, their fate is generally sealed, whatever the treatment. Now, therefore, I try in such cases to encourage them to make family and social sacrifices which a more radical treatment of their disease entails. Family and social ties are as strong with the poor as with the rich; and the tendency is even stronger with them than the better educated, to demand from the physician a remedy which is to cure their complaint without any change or sacrifice on their part. As I have repeatedly said in the course of this essay, no such remedy exists for pulmonary consumption, nor is it probable that it will ever be discovered.

The various cures for pulmonary consumption that are constantly brought forward, are founded on entire ignorance of the laws of general pathology. Those who are acquainted with these laws know well how utterly impossible it is for any one of the remedies proposed—for the inhalation of any medicinal substance, or of any amount of compressed air, or for any degree of forced inspiration—to cure a disease such as I have described, one of defective lowered vitality.

Nothing but an appeal to the laws that regulate the preservation and development of life can have that result. An intelligent application of those laws, as demonstrated by physiology, with the assistance of climate and rational therapeutics, may, however, be made most unquestionably the means of saving very many lives.

As I have stated in my work on Climate ("Winter in the South of Europe," 3d edition), I am now surrounded, both at home and abroad, by a little tribe of friends and patients, whose lives have been saved, like my own, by the steady application of these principles.

[Those of our readers who have carefully read the interesting series of papers "*On the Treatment of Pulmonary Consumption*," by Dr. J. Henry Bennett, of London, and which has been recently concluded in the *London Lancet*, Nov. 3, will not regret the space occupied in our journal by their republication. Many of our profession from personal experience can corroborate the practical conclusions of the distinguished author, based as they have been on his own sufferings, his extended observations, and his own experience of "the combined influence of Hygiene, Climate and Medicine," in this widely prevalent

disease. We see it already announced that at the Medical Congress to be held in Paris, in 1867, the first question for discussion will be "*The Pathology of Tuberculosis; or the Existence of Tuberculosis in different Countries, and its Influence on General Mortality.*" *London Lancet*, Nov. 3, p. 498. In connexion with this subject we may state that Dr. Horace Dobell has published "*A Fourth Report of Cases of Consumption treated with Pancreatic emulsion of Solid Fat.*" *Ibid.* Nov. 17. And we give his statement: "I have now reported the result of one hundred and eighty-seven carefully watched cases, and the sum of the whole series, which has extended over about three years, is as follows: "In the first stage (advanced), forty-five cases; second stage, sixty-nine; third stage, seventy-three. Condition on discharge, measured by general symptoms: Improved, one hundred and fifty-eight; stationary, eight; worse, eighteen; not noted, three. Measured by physical signs: Improved, one hundred and eighteen; stationary, forty-six; worse, eighteen; not noted, five. Emulsion agreed, one hundred and eighty; disagreed, seven. Cod liver oil agreed, seventy-five; disagreed, ninety-eight; not tried, fourteen. As our readers are aware, Dr. Dobell asserts that in giving the pancreatic juice or the cod liver oil, there is the same difference as in supplying a plant with soil or water.

Want of space compels us to omit the article on *Climate*, in the London *Lancet*, of October 13. We give the conclusions of the author: "Consumptive patients do best in a dry, cool, sunny region, and that they are rather damaged than improved by a warm moist climate. After devoting seven successive years to the study of the winter climate of the south of Europe, after much traveling and reflection, after a careful perusal of the writings of other authors on climate, I have come to the conclusion that the most favorable and accessible climate for chronic disease of the respiratory organs, and especially for phthisis, as also for diseases characterized by organic debility, is the undercliff of Southern Europe, or the coast ledge which forms the north shore of the Mediterranean from Carnes to Pisa."]—G. C. B.

Principles of Treatment in Heart Disease.

Dr. Habershon, in the last number, 1866, of *Guy's Hospital Reports*, lays down the following principles of treatment:

1. To lessen the work of the heart, which may be effected to some extent by mechanical rest, by a recumbent position, and by the avoidance of sudden changes of temperature.

2. To insure regularity of action, by avoiding mental excitement, guarding against indigestion, and by never allowing constipation to continue.

3. To lessen distension of the right side of the heart, by means of purgatives, diuretics, and by mechanically diminishing the quantity of fluid in the circulation.

4. To prevent syncope by avoiding sudden muscular movements, and the use of sedatives, or, if the latter be employed, to be cautiously administered.

5. To strengthen the muscular fibre of the heart, by suitable nourishment, chalybeate medicine, and a bracing atmosphere.

6. To prevent fibrillation of the blood, by the use of iodide and acetate of potash, but not continuously in large doses, as then they might depress the action of the heart. Brandy, by its tendency to counteract syncope may, in a secondary manner, prevent fibrillation. Rightly given, brandy is a most valuable medicine in cardiac diseases; and it may be the means of greatly prolonging life and relieving the distress of the sufferer.

7. To prevent secondary complications, and to relieve them when produced. These complications are broncho-pneumonia and pleuritic effusions, pulmonary apoplexy, and other hemorrhages, and visceral engorgements, as hepatic and venous congestions, with ascites and anasarca. Portal congestion may be relieved by a mercurial purgative, the compound jalap powder, or the elaterium powder. The kidneys may be excited to a more vigorous action by a combination of mercurials with squills, the nitrate, iodide, and acetate of potash, combined with nitric ether, squill, juniper, or broom. The anasarca may be diminished by puncturing the skin on the thigh, and the flow of serum be promoted by warm applications. Hemorrhage to be reduced by dilute sulphuric acid with sulphate of magnesia and gallic acid, or acetate of opium, alum or the oil of turpentine; but as it is the result of intense venous congestion, it is mitigated in a great degree by lessening the congestion than by direct astringents. The pulmonary engorgements may be greatly reduced by the application of cupping-glasses between the shoulders, or a blister to the chest.

On the Urine in Acute Rheumatism.

Dr. Thomas Stevenson in the 12th volume of *Guy's Hospital Reports*, (1866), thus concludes a paper upon the above subject:

1. In acute rheumatism, when the excretions of solid materials in the urine is large, the patient makes, other things being equal, a rapid recovery; on the other hand, in lingering cases the excretion of solids is usually small.

2. As in this disease the urine is invariably scanty in bulk, but (generally from this cause only) of high density, a useful guide to the progress of the case may probably be found by diluting the urine to the normal bulk, and then ascertaining its specific gravity. According as it is now, of high or of

low density, will the progress of the disease probably be favorable or unfavorable.

3. Though the excretion of urea is usually greater during the height of the disease than during convalescence, this is not invariably the case; the reverse sometimes occurs. Though the excretion of urea is greater during the disease than during the early state of recovery, the urea in the former stage seldom very much exceeds in amount the normal physiological excretion.

4. The uric acid is always much increased while the disease continues.

5. The phosphoric acid is generally in greater amount during the progress of the disease than during recovery, but the quantity of this substance rarely much exceeds the quantity secreted in health.

6. The excretion of sulphuric acid is generally increased, and often largely. In one instance more was excreted during recovery than during the acute stage of the disease. The amount of this substance excreted is very variable.

The "White Streak" in Scarlet Fever.

Dr. Samuel Jones Gee, in his *Essay on Scarlet Fever*, published in Reynolds' "*System of Medicine*," vol. I, p. 336, London edition, thus refers to the above symptoms:

"When the nail is firmly drawn over the skin in which the rash is present, (over the belly or thighs is best) a white streak soon follows, lasts a minute and then disappears; a very firm stroke brings out a middle red mark, and two lateral white streaks. These phenomena have been thought to be pathognomic. But are they really peculiar to scarlet fever? does the "white streak" show more than that the skin is injected, whereby the effect of a contraction of the small vessels in the cutis is heightened, and of a dilatation obscured?"

Gout.

There is a point connected with gouty inflammation which is not without interest, namely, the fact, that however acute in character, it never leads to the formation of pus. An inflamed joint may be intensely red, even scarlet, the skin shining from the distention, and it may altogether exhibit the appearance of suppuration; yet all these symptoms quickly subside, and by resolution merely. When it is stated that a part affected by gouty inflammation never suppurates, it should be added, unless previously the seat of chalk-like deposits."—*Garrod, in Reynolds' System of Medicine.*

The Death of Trousseau.—A cable dispatch to the *Courier des Etats Unis*, announces the death of this distinguished French Professor

[*N. Y. Medical Record.*

OBSTETRICS, DISEASES OF WOMEN, MATERIA MEDICA AND THERAPEUTICS.

By THEOPHILUS PARVIN, M. D., Professor of Materia Medica and Therapeutics, Medical College of Ohio, and Clinical Lecturer on Diseases of Women at St. John's Hospital.

Waring's Manual of Practical Therapeutics. Second edition: London, 1865. Re-published by Lindsay & Blakiston. Philadelphia, 1866.

This handsome volume which Lindsay & Blakiston now present the American Profession, is a faithful transcript, neither subtraction nor addition, nor other alterations made, of the second edition of Dr. Waring's valuable work.

The readers of this Journal need not now be informed of our high appreciation of "Waring," for more than once in the course of the year our allusions to it have indicated such appreciation. It is something extraordinary that a surgeon in India, remote from the great centers of medical knowledge, procuring only after long delays and with much difficulty recent books and periodicals, should produce a volume which in variety of therapeutical facts is unequaled by any similar work in the whole range of medical literature. Such patient research, such a thorough sifting of all cotemporary publications, as well as of standard volumes, reveals a most marvellous and intelligent industry.

One illustration of this research, and we will take it from the statements in regard to the therapeutics of *Sanguinaria:* "Dr. Mothershead also speaks highly of its value as an excitant of the liver when given in alterative doses." About twenty years ago the late Dr. J. L. Mothershead, an esteemed practitioner of Indianapolis, wrote an essay, which was published in the *Chicago Medical Journal*, upon Sanguinaria; and now we have coming back to us from the other side of the globe one of the statements he then made—a therapeutical fact observed by a laborious and unambitious practitioner in a western town of the western continent, a town then having but a few thousand inhabitants, finds its way over leagues of ocean and hundreds of miles of land, to an unknown surgeon "at a remote and solitary station in Burmah," who records it in the notes he is preparing for a Manual of Practical Therapeutics, a Manual which, now for the first time issued in this

country, is destined to become familiar to the reading men of the American profession.

The introduction to this volume is devoted to a few general considerations upon Therapeutics, sources of our therapeutical knowledge, circumstances modifying the action of medicines, etc. Then follow the Articles of the Materia Medica, each separately considered, the order pursued being the alphabetical. This order, we would say, is very convenient for the practitioner, as he can refer in a minute to any subject, without having to search an index first; we believe this, too, in many respects, the best order to pursue in lecturing upon Materia Medica and Therapeutics; first get a student familiar with the individual articles of the Materia Medica, and then he can better appreciate the classification of remedial agents and general discussion of therapeutics that may be made—go over your field, collecting all your grain before binding a sheaf or building a stack.

The second part of Dr. Waring's work is entitled *Medicinal Agents and Classes of Medicines;* and here again we have the alphabetical order pursued, commencing with "Acids" and ending with "Water." Before the general index we have an "index of diseases," referring in connection with each disease to the therapeutical agents spoken of as useful in that particular malady, an asterisk being used to denote the paragraphs which are most deserving of attention.

If we knew just what words to say to induce practitioners to procure this volume, those words should be instantly said. For ourselves we would part with any volume upon Materia Medica and Therapeutics, and our collection of such works is not small, in our library, rather than this.

ART. II.—*Dr. Storer's Prize Essay.*

The *London Lancet* of November 3d, uses the following language in reference to "WHY NOT?":

"To us it seems that the whole treatment of the subject is objectionable, and the existence of the vice a blot upon the people. It is a matter for the ministers of religion and for the heads of families, a question of morality of elementary duty, and of primary religious importance."

We may agree with all thus said except the first clause of the first sentence, "The whole treatment of the subject objectionable?" Parts may be, but in the main we must reiterate the opinion expressed last month, and we heartily wish the volume a wide circulation.

It is, as the *Lancet* observes, "a matter for the ministers of religion." But how shall they do their duty in reference to it? Only the other day an earnest Christian minister whose eyes had already been opened to the existence of this enormous evil, and who was anxious to do something toward arresting its progress, asked us this very question. Now, no matter what may be done by "heads of families" or by "ministers," the most powerful weapons which they can use must be furnished by the medical profession, and Dr. Storer has done an excellent work, not alone in calling the attention of women to the perils and dangers they incur, but also in arming with firm arguments those whose words may have stronger influence in special cases.

But our desire at present is to call attention to an article we find in the *Boston Medical and Surgical Journal* of Nov. 1st, and which we republish; we heartily second the wish of the editor of that periodical, that it might find its way in some more popular form to the eyes of every husband in the land. The writer is said to be "the wife of a Christian physician;" whoever she may be her earnest and well-chosen words, and the facts—startling to some as they will be—are worthy of being well weighed. We doubt not many a wife will, and many a husband ought, from the inmost heart, to thank her for what she has written.

The article is entitled, "*Why Not? A Book for Every Woman.* A Woman's View."

"The light in which a subject presents itself depends very much upon the stand-point from which we view it. Dr. Storer's arguments and statements are earnest, conscientious and powerful; but women, the chief players in this tragedy of life, feel that while the facts are in possession of medical men, their motives are not so well known and appreciated. Often they are of such a character as may not be repeated, even to the long-tried and trusted physician; for there are certain things of too painfully delicate a nature for woman's lips to utter to a masculine ear; while to a sister sympathizer, perhaps, the whole story is freely poured out.

Abortion is fearfully frequent, even more so than Dr. Storer has assumed, and is rapidly increasing. One great reason of the aversion to child-bearing is the thousand disagreeable and painful experiences which attend the long months of patient waiting, and the certain agony at the end—agony which is akin to nothing else on earth—agony which the tenderest susceptibilities and sympathies of the noblest physician can but faintly imagine—agony which, in not one case in a hundred, is mitigated by anæsthesia. If the blessed, benevolent suggestion of the general use of chloroform could be adopted, the world would hear less of abortions. The thousand times reiterated fact, that "it is a woman's *duty* to suffer this," and that it is "the end to which she was created," is but sorry comfort in the hour of her anguish, and such injunctions will, of themselves, never work reformation.

It is a suggestive fact that it is not young wives, but mothers, who most frequently procure abortion; women of mature years, who know what they are doing, and the danger before them. That they are guilty of taking life is not generally understood (that there is life actually existing at the time

the bud is blighted), but that the essential principle, which, under favoring circumstances, might at some distant day produce life, is removed.

It is not strange that women of delicate organization shrink from suffering, and perhaps grow cowardly in face of duty. Many is the intelligent woman, noble in all else, who says, consciously and deliberately, "I would rather die than pass through that agony again;" and in such a frame of mind, how long would the prospect of feeble health at some distant day, weigh with the prospect of immediate suffering, almost, or quite to death? I do not say she is right. I only say she needs something else than censure.

The true and *greatest* cause of abortion is one hidden from the world, viz.: unhappiness and want of consideration toward wives in the marriage relation, the more refined education of girls, and their subsequent revolting from the degradation of being a mere thing—an appendage. All the world knows that in this "age of progress," marriage is too often corrupted from a sanctuary of love and purity, to a convenience for revelling and grossness. Many is the intellectual, spiritual woman bound to such a condition, which she will not for pride's sake, or honor's sake, report. Stung by disappointment, she rebels, and is perhaps told that marital rights are ordained of society and Heaven, and that she, knowing it, should not have come within their power. A very common argument, true within limits; but power does not necessarily imply right of abuse. She is, perhaps, on the way to motherhood, and with her feeble strength, depressed spirits, and waning ambition and courage, she needs sympathy, comfort and encouragement. Surely her burden is heavy enough. But if she grieves or complains, she is perhaps confronted with the assertion that it is what she is made for—and with bitterness of heart and sorrow of soul, looking down through long weeks of heart-sickness and physical pain and unrest, to the dreaded, unknown crisis, to the after years of care, labor and anxiety, and all to bear without hearty sympathy—what wonder that she is in despair, and little cares whether she live or die? Yet she must smile, and be cheerful to the world, and it never guesses all is not right at home. This is not fancy (would it were!), but veritable every-day life. If she learns a way of escape, what wonder that she count herself happy to be rid of, not so much the pledge of a husband's love, as of his selfishness, that has haunted her life! What wonder if she for a time forget her moral obligations in her extremity, and is indifferent to the life which is no longer a blessing! Remonstrance is met at home, perhaps with inattention, perhaps with blame. Remonstrance abroad is forbidden. Whither shall she turn? What is left but to bury her grief in her own heart, and live on as best she may? Deal tenderly with these stricken ones. Condemn them not utterly, for though they sin, they are sinned against. Don't load them with all the guilt, for they are already overborne. Not that sin in one excuses sin in another, but it is harder to walk with a mountain in our way, than in a smooth, well-beaten path.

Dr. Storer says, if women would avoid consequences, they must make choice of time; but in the goodness and generosity of his heart, he fails to see that no choice is allowed them in many cases. They are not independent,

but subject; and all teaching tends to keep them so. Here is just where the trouble begins. This is why they rebel. Save themselves from the *cause* they can not. The consequence is mainly within their power, and the temptation is strong to throw off the bond which confines them to the fireside. Domestic and maternal duties and joys, in moderate degree, make women nobler and better; but do not for a moment imagine that an almost absolute imprisonment at home, for ten years or more, as is common, with finances ranging as they ordinarily do, can tend to make wives more intelligent, more companionable, more Christian, or *more happy*. It may be duty, but of the stamp unmingled with joy.

It is noticeable that happy wives, strong in the affectionate regard of considerate husbands, rarely attempt this violence. There is but one stronger element known to society than that of a true woman's love for a worthy husband; one who is careful for her comfort and her preferences. It is generally admitted that women are not more selfish than men; that they are as ready to sacrifice comfort, to yield to inconvenience, as quick to appreciate consideration and to requite it, as men. Let such a woman, be she ever so slight and fragile, ever so much averse to motherhood, let her but be convinced that her husband would be happier with little voices singing in his home, and let him sustain her and *pity her*, and she will bear it all, even to the end, cheerfully. No complaints will be heard, and the influence of that household will be pure.

Do not accuse me of justifying abortion, or of seeking to lay blame upon innocent shoulders. Abortion is a crime, and women are guilty of it, but they sin not alone. While attention is being called to the fact, why not also to the cause? Wives' burdens are too heavy, as blanched cheeks and early graves continually testify—and the more intelligent they are, the more they recoil in disgust from the life they are led; for, mark it, it is not the ignorant class who are guilty of procuring abortion.

But what shall we say for the unhappy, unfortunate women, by no means few or inferior, who are victims of selfish and gross husbands, who are allowed no choice of time or convenience, whose hearts ache with disappointment and degradation, who find the heaviest burdens of life heaped upon them without feeling, who go almost into the shadow of death, and yet return to make the pilgrimage again and again—what shall we say for them, if they do, in their desperation, find an escape from the consequences of what was unwillingly forced upon them? Will the Father of the sorrowful have no mercy on them? Surely they are in evil case, and their numbers are manifold. Thank God, there are yet some royal souls true to principle.

If Dr. Storer will perform as noble service for our brothers and husbands as for ourselves, and send the two books out hand in hand, they will bring him back a rich harvest of gratitude, and amendment in morals. Let women feel that they are honored and appreciated, *really*, for their worth, not for their convenience, and the mass will not attempt to defeat the purposes of their being. For those to whom fashion is god, I have not a word to offer. Let them plead for themselves.

Clitoridectomy Again.

The *London Lancet*, Nov. 3, contains a letter from Baker Brown, in reply to the objections made against excision of the clitoris. In the course of it he makes the following proposition: "The numerous facts I have collected at the London Surgical Home are, as they always have been, open to the strictest investigation, and I beg to state that I am willing to nominate, *jointly with the Lancet*, a commission to report on the subject. Should such a commission report in favor of the operation, it would at once become recognized; while in case of an adverse verdict, I would abandon the practice." He proceeds to state with a vanity which would not discredit a very little man, but which is hardly suitable for one of the great lights and leaders of the profession, "My confidence as to the result is mainly based on the facts which have been gathered at the Home, but is further strengthened by my experience in analogous instances; for whenever I have proposed any novel proceedings, it has at first been opposed, but afterward generally adopted.' *Exeunt Clitorides!*

MISCELLANY.

We owe an apology to our friends in Indiana for our long delay in noticing the transactions of their State Medical Society, at its last session. It is truly pleasant to attend these meetings, for they are made up of active working men, who manifest by their labors the deep interest they feel in protecting the honor and advancing the interests of their profession. The President, Dr. M. H. Harding, of Lawrenceburgh, delivered an address upon the effects of *Climate and Temperature*—upon *Health and National Character.* Did our space permit we should be glad to extract some portions of this well written document, but we can only glance at the contents of the volume.

Dr. V. Kersey, of Richmond, Ind., has a carefully prepared paper on *Cholagogues, and the Indications for their Use*, in which he controverts certain views on the Liver, presented to the Society by Dr. James F. Hibberd, of the same city. But the analysis of his paper we must hand over to our colleague whose special province it is to discuss therapeutics. Our pages during the past three months have contained so much upon the subject of Cholera, that we must pass over the papers of Dr. L. R. Johnson, of Cambridge City, Dr. Wm. F. Harvey, of Philadelphia, and Dr. R. E. Haughton, of Richmond. Dr. Jas. Thompson, of Moscow, has a paper on *The Radical Treatment of Inguinal Hernia*, to which we must return in our next number. He also reports a case of epilepsy by trephining, and proposes the question: "Is trephining as dan-

gerous as taught in the text-books?" He adds that fifteen cases of removal of bones of the head, fell under his notice during the siege of Vicksburg, and that only one proved fatal, and that from intoxication, three months after the operation. We quote his own opinion: "I think few die from the effects of trephining, but many from the effects of the injuries for which the trephine was used. In reference to the mortality following trephining for epilepsy, Prof. Gross gives us his own experience, *System of Surgery*, 3d edition, Vol. II, p. 153: "I myself had occasion to perform the operation four times, with the effect of one cure and three deaths; and I have witnessed the execution in three other cases, all of which terminated fatally." Our own experience accords with that admitted by Prof. Gross, and as bearing upon the opinion advanced by Dr. Thompson, that few die from the effects of trephining, we give the following statement of Prof. Gross: "Nearly all the patients perished within the first week from inflammation of the brain and its envelopes, evidently induced, not by any direct injury inflicted upon these structures in the operation, but by the disturbance of the cerebal circulation consequent upon the removal of the depressed bone. The event in question occurred in all these cases, notwithstanding the most thorough preparation of the system and the most assiduous attentions during the after treatment." Dr. John S. Billings, formerly our pupil, and now of the regular army, a few years since, when about to graduate in the Medical College of Ohio, presented to the Faculty a *Thesis*, in which he had with much care collected the reported cases of epilepsy treated by surgical operations, and of seventy-two cases subjected to trephining, forty-two were cured, four were unchanged, sixteen died, and the remainder were improved, but not entirely relieved. Authors on Military Surgery, we believe, are nearly unanimous in regarding trephining as a very dangerous or useless operation, although, according to Circular No. 6, of the War Department, it would seem that in our own army the operation had been followed by an unusual amount of success. We regret that we have neither time nor space to examine the remaining papers *On Excision of Bone*, by Dr. Comingare, of Indianapolis; *On Human Entozoa*, by Dr. Fletcher, of the same city, and the *Essay on Vaginal Fistules* by our colleague, Prof. Parvin. It is an interesting resume of the more important points connected with their *Etiology*, and their past and present method of treatment. Prof. P., as is well known to our readers, has devoted much attention to the study of the surgical diseases of females, and is acquiring an experience in their treatment which entitles him to be ranked among our first authorities upon this subject. The volume concludes with a short paper by Dr. Cole, of Kokomo, *On the Progress of Medical Science*; and from our brief and imperfect notice, it may justly be inferred that the Indiana State Medical Society can point with pride to the present volume of their transactions.

We have received through Robert Clarke & Co., a new (the third) edition of Prof. Frank H. Hamilton's most admirable *Treatise on Fractures and Dislocations*. The author states that in the preparation of this edition he has

studied carefully the cases and observations which have found a record since the date of the last edition; and "the frequency with which even surgical writers confound epiphyseal separations with fractures, has determined the author to select from Gray's excellent treatise upon anatomy, a number of illustrations, indicating the centers of ossification and the subsequent development of bones." He has also enlarged the chapter on *Gun Shot Injuries*, by the addition of a few statistics obtained from the published records of the United States and Confederate armies. As a good practical treatise, this work has no equal in the English language, and in view of the serious pecuniary responsibility assumed in these days by those who undertake the treatment of fractures and dislocations, we do not see how any practitioner can afford to be without it in his library. Having thus united in the general praise of Prof. Hamilton's treatise, we may venture to offer a few criticisms in our next number, and to inquire whether even the present edition might not have been improved, especially when treating of fractures, by incorporating the valuable results furnished us in the great work of Dr. E. Gurlt, of Berlin. In his *Hand-buch der Lehre von den Knochen bruchen*, the publication of which was commenced in 1862, and which has already reached 1660 pages, on fractures alone, we have the most wonderful accumulation of facts upon this subject, which has ever come under our observation. A summary of many of these might have been added to the researches of Prof. H., we think, with much advantage to the work. But we must return to the topic in another number.

Prof. Samuel G. Armor, of the Medical Department of the University of Michigan, and who was for many years connected with the Medical College of Ohio, has accepted the Chair of Therapeutics, Materia Medica and General Pathology, in the Long Island College Hospital, Brooklyn. We have only space to add that our Eastern friends must look out for their laurels. With Professor Armor, lecturing is a labor of love, and we predict for him, in his new field, the most brilliant success. The Long Island College has shown most excellent taste in its selection of a Western teacher, and we repeat to the Faculty that they must look out for their laurels.

We have received through Robert Clarke & Co., a new work on the *Eye*, just published by Mr. Henry C. Lea, of Philadelphia. It is entitled, *Handy Book of Ophthalmic Surgery*, by John T. Lawrence. F. R. C. S., Surgeon to the Ophthalmic Hospital, editor of the London *Ophthalmic Review*, and Robert C. Moon, House Surgeon to the Ophthalmic Hospital, Southwark, with numerous illustrations. The work forms a handsome octavo volume, and its price is $2.50. The object of the authors has been to give a concise view of modern ophthalmology, and the work must prove valuable to those who have only Lawrence or Mackenzie in their libraries. We can also recommend the work of Dr. H. W. Williams, of Boston, being the Boylston *Prize Essay*, for 1866, and bearing the title of *Recent Advances in Ophthalmic Science*. It has been published by the Messrs. Ticknor & Fields, and its price is $2.50.

George Fries, M. D.

It was with no ordinary sorrow that we announced in our last number the death of our distinguished friend Dr. Charles H. Tripler, and sad indeed is our present task to record the loss of Dr. George Fries, who died of organic disease of the heart, on the 13th of November. Dr. Fries had been so long identified with the profession of Ohio, had held so often posts of honor and public trust, and had been engaged in such an extensive practice in our city, that the news of his death produced the most profound sensation. The immense concourse of citizens as well as of his medical brethren which attended the funeral and followed his mortal remains to the grave, told more strongly than words of ours can do, how sincere was the attachment felt for him who had truly sacrificed himself by his arduous professional labors. All felt that his death had left a void which could not be refilled. Like his noble friend, Dr. Tripler, who had so briefly preceded him to that bourne from which no traveler returns, Dr. Fries died in the full faith of a blissful immortality. There is so much of moral and professional worth connected with the lives of both Dr. Tripler and Dr. Fries, so much to admire in their labors and brilliant achievements, that in justice to their memories we shall try to prepare a more appropriate notice of their contributions, especially to surgery. Our space compels us to conclude our present notice of Dr. Fries, with the proceedings of a special meeting of the Cincinnati Academy of Medicine, at which the following resolutions were adopted:

Whereas, The Members of the Cincinnati Academy of Medicine have learned with the deepest and sincerest regret of the death of our brother and fellow member, Dr. George Fries, on the 13th instant, after a protracted illness, from organic disease of the heart, we express here our heartfelt feelings of sorrow on this occasion. Dr. Fries was a good man, a useful citizen, and, in one word, a man whose whole life has been distinguished by noble purposes, and good, useful and constant labors in behalf of his country and humanity. His genial manner, generous heart, and great individuality of character will long be remembered by us, his fellows. His death leaves a void in the profession.

Resolved, That in the death of Dr. Fries this Academy has lost one of its best and most useful members.

Resolved, That in the death of Dr. Fries the profession and the public lose a good surgeon and physician, whose knowledge, firmness of purpose, and promptness in action are rarely combined.

Resolved, That we hereby extend to his family our deep sympathy and condolence in their great affliction; and as a mark of our great respect for our late brother, we will attend his funeral in a body.

Resolved, That a copy of these [resolutions be transmitted to his family, and be published in the daily papers and medical journals of the city.

Dr. J. L. Vattier, *Chairman*; Dr. W. T. Talliaferro, Dr. S. Bonner, Dr. C. S. Muscroft, Dr. J. A. Murphy, *Committee*.

We have received too late for insertion, the proceedings of a meetiug of the physicians of Jefferson county, Ky., held in reference to the death of Dr. M. L. Reid, whose character, both as a physician and a man, is highly extolled.

We have received a new (second edition) of Dr. Austin Flint's *Treatise on the Practice of Medicine*; also the republication of Jones *On the Nervous System*, too late for notice in our present number.

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